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DEPARTMENT: WATER AFFAIRS AND FORESTRY

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**Lonmin Platinum
P.O. Box 160
MOOINOOI
0325**

ATTENTION: MR. J. BYLEVeldT/T. KNOETZE

Dear Sir

**DIRECTIONS IN TERMS OF SECTION 20 (5) (b) OF THE ENVIRONMENT
CONSERVATION ACT, 1989 (ACT 73 OF 1989) FOR THE CONTROL AND
MANAGEMENT OF MOOINOOI WASTE DISPOSAL SITE**

Please refer to your Application to continue and complete re-construction of the Mooinooi Landfill Site dated 18 May 2004 prepared by Conrad Herbst Environmental Management Consultant (hereinafter referred to as "the Report") for the Western Platinum Limited Class G:S:B' disposal site in terms of Section 20 (5) (b) of the Environment Conservation Act 1989 (Act 73 of 1989).

The Department acknowledges your application and authorises the operation of the Mooinooi disposal site in terms of direction 2(2) of Government Notice 91 of 01 February 2002 published in Government Gazette No. 23053 (attached for your convenience), on the area as indicated on the application form for registration subject to the conditions set out below:

Viva water pure and clean! • Viva forests rich and green!

Your attention is also drawn to the following directions:

- 4(2) The registered person must take all measures to ensure that –
- (a) no medical waste is disposed of on site; and
 - (b) no scheduled pharmaceutical products registered in terms of the Medicine and Related Substances Control Act, 1965 (Act 101 of 1965) or associated containers are disposed of on site.
- 5(11) The maximum height of the site above ground level must not exceed three (3) meters.
- 7(2) Waste disposed of on site must be compacted and covered on a daily basis with a minimum of 150 millimeters of soil or other material approved by the Regional Manager or a person delegated by him or her.

Your attention is drawn to the following conditions added to the directions:

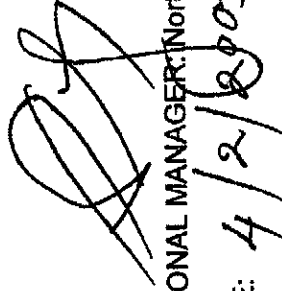
1. No extension is allowed, however should you require extending the existing site a supportive documentation should be submitted to motivate any extension.
2. The registered person shall close and rehabilitate the cell that is presently in use in accordance with a closure and rehabilitation plan, which shall be submitted by the registered person and which shall be to the satisfaction of the Regional Manager.
3. 7 (9) The registered person must take measures to implement waste minimisation and recycling (see condition 9 (2)), and to ensure that the following targets with regard to waste reduction are met:
 - (1) All garden and similar organic waste must be recycled and shall not be accepted for disposal at the disposal site within two (2) years after the date of issue of this directive.
 - (2) Within five (5) years after the date of issue of this directive the following materials must be eliminated from the disposal stream and put in a recycled stream: paper, plastic, glass, metal, and compostable organic waste .
 - (3) Annually updated strategies and procedures to implement continual reduction of waste streams and action to enable recycling systems, must be developed (see condition 9 (2)).
4. 8 (a) The registered person must establish boreholes monitoring network, consisting at least an upstream and a downstream

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boreholes for the site, to the satisfaction of the Regional Manager. Actions shall be taken to ensure unobstructed sampling to determine the impact from this disposal site on the groundwater, as required in terms of these directions, to be undertaken.

5. 9 (2) The measures the registered person has to take to ensure compliance with conditions 7 (9) (1) to (3), must be contained in an annually updated Waste Reduction Management Plan which must be submitted for approval to the Regional Manager by June each year.

If you have any enquiries, please do not hesitate to contact this office.



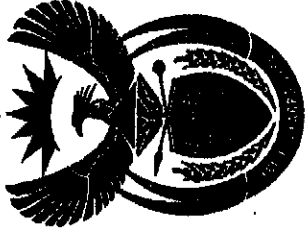
REGIONAL MANAGER: North West

DATE: 4/2/2005

Copy to: DWAF, Private Bag X313, PRETORIA, 0001

Attention: Mr G. L. Roux

Fax No. (012) 323 0321



DW 6/1

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The Department acknowledges your application and authorises the operation of the Mooinooi disposal site in terms of direction 2(2) of Government Notice 91 of 01 February 2002 published in Government Gazette No. 23053 (attached for your convenience), on the area as indicated on the application form for registration subject to the conditions set out below:

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SCHEDULE

1. DEFINITIONS

In these directions, unless the context otherwise indicates, a word or expression to which a meaning has been assigned in terms of the Environment Conservation Act, 1989 (Act 73 of 1989), (hereinafter referred to as "the Act") shall have the same meaning, and

"aquifer" means a water-bearing strata of fractured or permeable rock, sand or gravel;

"climatic water balance calculation" is the climatic water balance obtained by using the formula $B = R - E$, where B is the climatic water balance in millimetres of water, R is the rainfall in millimetres of water and E is the evaporation from a soil surface in millimetres of water, as fully explained in the Minimum Requirements for Waste Disposal by Landfill (Second Edition 1998), published by the Department of Water Affairs and Forestry and as amended from time to time.

(The calculation is used only to indicate the climatic conditions under which leachate management is needed, on account of the generation of significant leachate.)

"Department" means the Department of Water Affairs and Forestry;

"effective fence" is a fence constructed and erected in order to:

- (a) prevent any unauthorised or illegal access and dumping at the site;
- (b) prevent removal of waste from the site;
- (c) prevent access of milk or meat production animals to the site; and
- (d) curtail the spreading of wind-blown paper and plastic material;

"general communal waste disposal site (G.C.B. and G.C.B.)" in these directions means a disposal site -

- a) which receives only general waste;
- b) which receives less than twenty five (25) tons of general waste per day;
- c) which does not have any of the fatal flaws as set out in the Minimum Requirements for Waste Disposal by Landfill (Second Edition 1998), published by the Department of Water Affairs and Forestry and as amended from time to time.

"general small waste disposal sites with a negative climatic water balance (G.S.B.)" in these directions means a disposal site

- a) which receives only general waste;
- b) where no significant leachate will be generated in terms of the climatic water

- c) balance in order that a leachate management system is not required;
- d) which receives more than twenty five (25) tons but less than hundred and fifty (150) tons of general waste per day; and

- e) which does not have any of the fatal flaws as set out in the in the Minimum Requirements for Waste Disposal by Landfill (Second Edition 1998), published by the Department of Water Affairs and Forestry and as amended from time to time.

"general waste" means waste that does not pose an immediate threat to human life or the environment, and includes such waste as household waste, builders' rubble, garden waste, dry industrial and commercial waste. It may, however, with decomposition, infiltration and percolation, produce leachate with an unacceptable pollution potential. These wastes can create odour, fly or other nuisances.

"landfill" when used as a verb (v) means to dispose of waste on land, whether by use of waste to fill in excavations or by creation of a landform above ground, where the term "fill" is used in the engineering sense;

"landfill" when used as a noun (n) means the waste body created by landfilling. This may be above ground or below ground, or both;

"leachate" means an aqueous solution with a high pollution potential, which mainly results when water is permitted to percolate through decomposing waste. It contains final and intermediate products of decomposition, various solutes and waste residues;

"leachate generating disposal site" refers to a disposal site which may receive general waste only and where the Climatic Water Balance (B) is positive for more than one year in five for the years for which data is available;

"non-leachate generating disposal site" means a disposal site which is not a leachate generating disposal site;

"Regional Director" means a Regional Director of the Department of Water Affairs and Forestry in whose jurisdiction the waste disposal site is situated;

"registered person" refers to the person who, in terms of section 20(1) of the Act is legally responsible for the site, both during operation and after closure;

"responsible person" means a person(s) who takes professional responsibility for ensuring that all or some of the facets of any of the following are properly directed, guided and executed, in a professionally justifiable manner: investigatory work, design, preparation, operation, closure and monitoring;

"suitably qualified person" means a person other than the "responsible person" who is qualified or has experience in the management of waste disposal sites which is to the satisfaction of the Regional Director or a person delegated by him or her.

REGISTRATION OF GENERAL COMMUNAL (G:C:B' AND G:C:B') AND GENERAL SMALL (G:S:B) DISPOSAL SITES:

- (1) A person or body who wishes to establish and/or develop, operate, close and rehabilitate a general communal or a general small waste disposal site (hereafter referred to as "the Site") with a negative water balance must register the Site in the format as set out in Annexure A.
- (2) Registration in terms of subparagraph (1) authorises the establishment, development and operation of these Sites in terms of these directions and any other written condition that the Regional Director may deem necessary.

LOCATION

The location of the Site shall be according to the co-ordinates indicated on the application form for registration submitted by the registered person.

PERMISSIBLE WASTE

- (1) The Site may be used for the disposal of waste types in quantities contained in the definition for a general communal sites (G:C:B⁺ and G:C:B) and general small sites with a negative climatic water balance (G:S:B) and which are classified according to the Minimum Requirements for Waste Disposal by Landfill (Second Edition 1998), published by the Department of Water Affairs and Forestry and as amended from time to time, but excludes waste types listed in Annexure B.
- (2) The registered person must take all measures to ensure that-
 - (a) no medical waste is disposed of on the Site; and
 - (b) no scheduled pharmaceutical products registered in terms of the Medicines and Related Substances Control Act, 1965 (Act 101 of 1965) or associated containers are disposed of on the Site.

PLANNING, DESIGN, CONSTRUCTION AND COMMISSIONING

- (1) The planning of the Site and its design, construction and commissioning shall be in accordance with the Minimum Requirements for Waste Disposal by Landfill (Second Edition 1998), published by the Department of Water Affairs and Forestry and as amended from time to time.
- (2) The Site or any portion of a Site may only be used by the registered person for the disposal of permissible waste if the Site or any such portion has been constructed or developed according to the conditions set out in subparagraph (4) of this section.

- (3) The construction and further development of the Site must be implemented by the registered person under the supervision of a suitably qualified person approved of by the Regional Director or a person delegated by him or her.
- (4) New sites must comply as follows:
- (a) Before disposal may commence on the Site after construction of the Site, the Regional Director or somebody delegated by him or her must be notified and the person referred to in subparagraph (3) must submit a certificate or a letter to the Regional Director that the construction of the Site is in accordance with recognised civil engineering practice.
 - (b) The completed construction works of the Site must be inspected by an official of the Department and the person referred to in subparagraph (3).
 - (c) If the Regional Director or the person delegated by him or her is satisfied with the construction of the Site upon written permission, the registered person may use the Site or any further development within the Site for the disposal of waste.
- (5) Should a portion of the Site at any stage be extended, the registered person must notify the Regional Director or a person delegated by him or her of such a development and-
- (a) Before disposal may commence on that portion of the Site, the Regional Director or somebody delegated by him or her must be notified and the person referred to in subparagraph (3) must submit a certificate or a letter to the Regional Director that the construction of the extension, as proposed by the registered person and approved by the Regional Director or a person delegated by him or her, is in accordance with recognised civil engineering practice.
 - (b) The completed construction works must be inspected by an official of the Department and the person referred to in subparagraph (3).
 - (c) If the Regional Director or a person delegated by him or her, is satisfied with the construction of that further development within the Site and has given written permission, the registered person may use that portion of the Site for the further disposal of waste.
- (6) A buffer zone of a minimum of two hundred (200) metres for a general communal waste disposal site and of four hundred (400) metres for a general small waste disposal site must be maintained at all times. Heavy industries or industries that may create nuisance conditions and compatible with waste disposal sites, may be permitted within the buffer zone in terms of the appropriate legislation.
- (7) Works must be constructed and maintained on a continuous basis by the registered person to-
- (a) divert and drain from the Site all runoff water arising on land adjacent to the Site, which could be expected as a result of the estimated maximum precipitation during a period of 24 hours with an average frequency of once in fifty years (hereinafter referred

- to as the "estimated maximum precipitation") in compliance with relevant legislation.
- (b) under the rainfall event referred to in subparagraph 7(a), maintain a freeboard of half a metre.
 - (c) divert and drain from the working face of the Site, all runoff water arising on the Site, which could be expected as a result of the estimated maximum precipitation; and
 - (d) to prevent such runoff water from coming into contact with leachate from the Site.
- (8) Runoff water referred to in subparagraph (7) must comply with the quality requirements of the General Standard as published in Government Notice 991 of 18 May 1984, or with such quality requirements as may from time to time be determined by the Minister.
- (9) Runoff water referred to in subparagraph (7) that does not comply with the quality requirements applicable in terms of paragraph (8) and all sporadic leachate from the Site must by means of works which must be constructed and maintained on a continuous basis by the registered person, with the written approval of the Regional Director or a person delegated by him or her, be evaporated in dams and/or evaporated by spraying over those portions of the Site which comply with the requirements set in terms of subparagraph (2) of this section and/or other approved method of disposal.
- (10) The Site must be constructed in accordance with recognised civil engineering practice to ensure that it remains stable.
- N/S* (11) The maximum height of the Site above ground level must not exceed three (3) metres.
- (12) The slope of the sides of the Site must be constructed in such a manner that little or no erosion occurs.
- (13) The registered person must make provision for adequate sanitation facilities on the Site.

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ACCESS CONTROL

- (1) Weatherproof, durable and legible notices in the official languages applicable in the area must be displayed at each entrance to the Site which prohibits unauthorised entry and include the hours of operation, the name, address and telephone number of the registered person and the person responsible for the operation of the Site.
- (2) The Site must be effectively fenced or otherwise secured to prevent unauthorised entry.
- (3) The registered person must
 - (a) take steps to maintain service roads in a condition which ensures unimpeded access to the Site for vehicles transporting waste and to keep the roads free of waste;
 - (b) ensure that all entrance gates are locked outside the hours of operation;

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(c) ensure effective access control; and

(d) take all reasonable steps to prevent the disposal of waste on the Site for which the Site has not been approved.

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OPERATION

- (1) Waste disposal and operation must be implemented according to the Minimum Requirements for Waste Disposal by Landfill (Second Edition 1998), published by the Department of Water Affairs and Forestry and as amended from time to time and any other written instructions by the Department.
- (2) Waste disposed of on the Site must be compacted and covered on a daily basis with a minimum of one hundred and fifty (150) millimetres of soil or other material approved by the Regional Director or a person delegated by him or her.
- (3) Burning of waste will only be allowed on the Site if it is motivated by a written submission to the satisfaction of the Regional Director that it does not have a detrimental impact on the environment and operation of the Site.
- (4) Disposal of dead animals, rejected carcasses, parts of dead animals, contaminated food, food rests or any edible material must be immediately carried out when brought onto the Site by burying it in trenches and covered with at least five hundred (500) millimetres soil or other material approved by the Regional Director or a person delegated by him or her.
- (5) The registered person must take steps to ensure that the Site is operated in a manner that will prevent the creation of nuisance conditions or health hazards.
- (6) The registered person must apply sufficient dust control measures to prevent wind-blown dust from causing nuisance conditions or health hazards.
- (7) Operations must take place in trenches or in cells with the working face not greater than ten (10) metres by ten (10) metres.
- (8) Waste disposed of on the Site may be reclaimed provided that it is carried out in accordance with the waste reduction management plan (see condition 9 (2)) and approved by the responsible health authority. The reclamation activity must be done in such a manner to minimise interference with the daily operational activities of the Site.
- (9) The registered person must take measures to implement waste minimisation and recycling (see condition 9(2)), and to ensure that the following targets with regard to waste reduction are met:
 - (1) All garden and similar organic waste must be recycled and shall not be accepted for disposal at the waste site within two (2) years after the date of issue of this directive.
 - (2) Within five (5) years after the date of issue of this directive the following materials must be eliminated from the disposal stream and put in a recycled stream: paper, plastic, glass, metal, and compostable organic waste.

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(3) Annually updated strategies and procedures to implement continual reduction of waste streams and action to enable recycling systems, must be developed (see condition 9 (2))

(10) Wind-blown litter leaving the Site must be collected on a daily basis.

(11) Adequate provision must be made on Site for drinking water, sanitation and ablution facilities for workers.

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MONITORING

General small sites with a negative climatic water balance (G:S:B) must comply with paragraphs 8 and 9 hereunder.

WATER MONITORING

(a) The registered person must establish a monitoring borehole network, consisting of an upstream and a downstream borehole for the Site, to the satisfaction of the Regional Director, so that unobstructed sampling, as required in terms of these directions, can be undertaken.

(1) BACKGROUND MONITORING

(a) Samples from the upstream borehole where the groundwater in the borehole is at an expected higher hydraulic pressure level than the hydraulic pressure level of the groundwater under the Site, shall be considered as background monitoring.

(b) Background monitoring shall be conducted on a six monthly basis for the water quality variables as listed in Annexure C hereto and reported to the Regional Director within thirty (30) days from the date of sampling.

(2) DETECTION MONITORING

Detection Monitoring shall be conducted six monthly at the downstream borehole for the water quality variables listed in Annexure D and reported to the Regional Director within thirty (30) days from the date of sampling.

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REPORTING

(1) The registered person must keep a record of and update all the information referred to in Annexure E within a period of one (1) year from the date of this Registration and annually thereafter.

(2) The measures the registered person has to take to ensure compliance with conditions 7 (9) (1) to (3), must be contained in an annually updated Waster Reduction Management Plan which must be submitted for approval to the Regional Director by June each year.

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CLOSURE AND REHABILITATION OF THE SITE

The registered person must notify the Regional Director by registered mail within 180 days prior to the intended closure of the Site and submit final rehabilitation plans for his approval. These plans must be in accordance with the Minimum Requirements for Waste Disposal by Landfill (Second Edition 1998), published by the Department of Water Affairs and Forestry and as amended from time to time.

LEASING AND ALIENATION OF THE SITE

- (1) Should the registered person wish to alienate or lease the Site, he or she must notify the Regional Director in writing of such an intention at least 120 days prior to the said transaction.
- (2) Any new owner of the Site must apply for re-registration of the Site.

OFFENCES AND PENALTIES

Any person who contravenes any provision of this direction or fails to comply therewith shall be guilty of an offence and liable on conviction to the penalties contained in section 29(4) of the Act.

GENERAL

- (1) The registered person must together with the application for Registration of the Site, provide written confirmation from the Local or Regional Authority that waste disposal is allowed on the Site in terms of Local or Regional Planning Schemes.
- (2) These directions do not exempt the registered person from any relevant regulations promulgated under the Act or any other relevant legislation. Proof of exemption and /or Record of Decisions must be submitted to the Regional Director.
- (3) If the Site is an existing Site and not zoned for waste disposal, and if consent cannot be provided by the Local or Regional Authority for waste to be disposed on the Site, the registered person must within a period of 60 days following the application for registration, apply for the rezoning of the Site for waste disposal purposes.
- (4) Such application must be successfully completed within a period of two (2) years, failing which the registered person must comply with subparagraph (10).
- (5) The Minister may at any time amend, extend, or withdraw these directions.