



## GAUTENG PROVINCE

AGRICULTURE AND RURAL DEVELOPMENT  
REPUBLIC OF SOUTH AFRICA

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Reference: Gaut: 002/11-12/W0016 &

Gaut: 002/11-12/E0228

**Mr. Mike Yeats**

**VEREENIGING REFRACTORIES (PTY) LTD (VERREF)**

P. O. Box 117

**VEREENIGING**

1930

Dear Mr. Yeats,

**INTEGRATED ENVIRONMENTAL AUTHORISATION GRANTED: FINAL REVISED ENVIRONMENTAL IMPACT ASSESSMENT REPORT FOR THE PROPOSED NEW TONK METER ROAD GLB+ WASTE DISPOSAL FACILITY AT THE REMAINDER OF PORTION 81 OF THE FARM RIETFontein 128 IR, SPRINGS, CITY OF EKURHULENI.**

With reference to the above-mentioned application, please be advised that the Department has decided to grant an Integrated Environmental Authorisation. The Integrated Environmental Authorisation and reasons for the decision are attached herewith.

In terms of Regulation 4 (2) of the Environmental Impact Assessment Regulations, 2014, as amended, you are instructed to notify all registered interested and affected parties, in writing and within **fourteen (14) days** of the date of this letter, of the Department's decision in respect of your application as well as the provisions regarding the making of appeals that are provided for in the regulations.

Your attention is drawn to Chapter 2 of the National Appeal Regulations, 2014 which regulates the appeal process. Should you wish to appeal any aspect of the decision, you must within **twenty (20) days** of the date of notification of the decision submit your appeal including supporting documents to the appeal administrator by any of the following means:

**Postal Address:**

The Appeals Administrator

Department of Agriculture and Rural Development

PO Box 8769

**JOHANNESBURG**

2000

**Physical Address:**

The Appeals Administrator

Department of Agriculture and Rural Development

56 Eloff Street, 23<sup>rd</sup> floor

Umnotho House

Marshalltown

**JOHANNESBURG**

2000

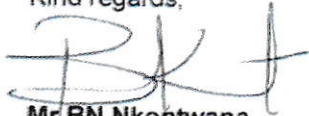
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**Fax No:** 011 240 3158/2700

**Email Address:** [appeals@gauteng.gov.za](mailto:appeals@gauteng.gov.za)

Your appeal must be submitted in the prescribed appeal form obtainable from the appeal administrator, Ms Tsholofelo Mere at telephone number 011 240 3204 or email address [Tsholofelo.mere@gauteng.gov.za](mailto:Tsholofelo.mere@gauteng.gov.za). The appeal form is also available from our website: [www.gdard.gpg.gov.za](http://www.gdard.gpg.gov.za). Should you have queries or require additional information regarding the appeal process, you can contact the appeal administrator on any of the mentioned contact details.

Kind regards,



**Mr BN Nkontwana**

**HEAD OF DEPARTMENT: AGRICULTURE AND RURAL DEVELOPMENT**

**Date:** 29/9/2017

**CC:** AECOM SA (Pty) Ltd

**Attn:** Mr. J. Hayes  
**Fax:** 012 421 3501  
**Email:** [Johan.hayes@aecom.com](mailto:Johan.hayes@aecom.com)

Ekurhuleni Metropolitan Municipality

**Attn:** Mr. M. Thenga  
**Email:** [Madikana.thenga@ekurhuleni.gov.za](mailto:Madikana.thenga@ekurhuleni.gov.za)

GDARD: Pollution and Waste Management

**Attn:** Ms. N. Rammabasa  
**Fax:** 086 632 2017  
**Email:** [Nkhumeleni.Rammabasa@gauteng.gov.za](mailto:Nkhumeleni.Rammabasa@gauteng.gov.za)

GDARD: Compliance and Enforcement

**Attn:** Ms L. Mkhungo  
**Fax:** 086 420 2110  
**Email:** [Lungile.Mkhungo@gauteng.gov.za](mailto:Lungile.Mkhungo@gauteng.gov.za)

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## GAUTENG PROVINCE

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### Integrated Environmental Authorisation

Integrated Environmental Authorisation  
Register number:

Gaut: 002/11-12/W0016 & Gaut: 002/11-12/E0228

Waste Management Facility:

New Tonk Meter Road Waste Disposal  
Facility

Class:

Class B

Type of Waste

General Waste

Holder of Integrated Environmental  
Authorisation:

Vereeniging Industries (Pty) Ltd

Location of activity:

Remaining extent of Portion 81 of the Farm  
Rietfontein 128 IR, City of Ekurhuleni

Co-ordinates:

	Latitude:	Longitude:
Corner 1	26°17'53.62"	28°25'30.17"
Corner 2	26°18'14.63"	28°24'57.26"
Corner 3	26°17'49.71"	28°24'51.83"
Corner 4	26°17'38.18"	28°25'19.57"
Corner 5	26°17'20.16"	28°25'08.94"
Corner 6	26°17'17.87"	28°25'02.67"
Corner 7	26°17'26.18"	28°24'58.30"
Corner 8	26°17'29.50"	28°24'47.66"
Corner 9	26°17'06.46"	28°24'42.41"
Corner 10	26°17'30.38"	28°25'42.24"
Corner 11	26°17'44.20"	28°25'38.18"
Corner 12	26°17'44.93"	28°25'43.06"
Corner 13	26°17'48.59"	28°25'43.95"
Corner 14	26°17'49.34"	28°25'37.12"
Corner 15	26°17'54.65"	28°25'36.17"
Corner 16	26°17'56.79"	28°25'34.17"



## Definitions

**"activity"** means an activity identified –

- (a) in Government Notice No. 921 as a listed activity; or
- (b) in any other notice published by the Minister or MEC in terms of section 24D of the Act as a listed activity or specified activity;

**"alternatives"**, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to the-

- (a) property on which or location where the activity is proposed to be undertaken;
- (b) type of activity to be undertaken;
- (c) design or layout of the activity;
- (d) technology to be used in the activity; or
- (e) operational aspects of the activity;

and includes the option of not implementing the activity;

**"applicant"** means a person who has submitted or intends to submit an application;

**"application"** means an application for an-

- (a) environmental authorisation in terms of Chapter 4 of government notice No. R982 of 2014;
- (b) amendment to an environmental authorisation in terms of Chapter 5 of government notice No. R982 of 2014 as amended;
- (c) amendment to an EMPr in terms of Chapter 5 of government notice No. R982 of 2014; or
- (d) amendment of a closure plan in terms of Chapter 5 of government notice No. R982 of 2014 as amended;

**"basic assessment report"** means a report contemplated in regulation 19 of government notice No. R982 of 2014 as amended;

**"EAP"** means an environmental assessment practitioner as defined in section 1 of the Act;

**"EMPr"** means an environmental management programme contemplated in regulations 19 and 23 of government notice No. R982 of 2014 as amended;

**"environmental audit report"** means a report contemplated in regulation 34 of government notice No. R982 of 2014 as amended;

**"public participation process"** means a process in which potential interested and affected parties are given an opportunity to comment on, or raise issues relevant to, specific matters;

**"the Act"** means the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).

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## 1. Decision

The Department is satisfied, on the basis of the information available to it and subject to compliance with the conditions of this Integrated Environmental Authorisation that the applicant should be authorised to undertake the activity specified below.

Details regarding the basis on which the Department reached this decision are set out in **Annexure 2**.

## 2. Activities Authorised

By virtue of the powers conferred on it by the National Environmental Management Waste Act, 2008(Act No. 59 of 2008), the Environmental Impact Assessment Regulation, 2014 as amended and the National Environmental Management Act (Act no. 107 of 1998), as amended, the Department hereby grant an Integrated Environmental Authorisation to:

### Vereeniging Refractories (Pty) Ltd (Verref)

with the following contact details –

Mr. Mike Yeats  
P.O Box 117  
**VEREENIGING**  
1930

**Tel: 016 450 6111**

**Fax: 016 421 2481**

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to undertake the following activities (hereafter referred to as "the activity") –

The proposed activity entails the development of a new, privately owned waste disposal facility and associated infrastructure at the remaining extent of Portion 81 of the Farm Rietfontein 128 IR, which falls within the jurisdiction of City of Ekurhuleni hereafter referred to as ("the site"), a listed activity in terms of Government Notice R 921, 29 November 2013, of the National Environmental Management Waste Act 2008(Act No. 59 of 2008), as amended, Government Notice R983 of the Environmental Impact Assessment Regulation, 2014, as amended and the National Environmental Management Act (Act No. 107 of 1998), as amended, as follows:

### Category A

Listed Activity No. 2: *"The sorting, shredding, grinding, crushing, screening or bailing of general waste at a facility that has an operational area in excess of 1000m<sup>2</sup>".*

Listed Activity No. 3: *"The recycling of general waste at a facility that has an operational area in excess of 500m<sup>2</sup>, excluding recycling that takes place as an integral part of an internal manufacturing process within the same premises".*

Listed Activity No. 12: *"The construction of a facility for a waste management activity listed in Category A of this Schedule (not in isolation to associated waste management activity)".*



Category B.

Listed Activity No. 8: *"The disposal of general waste to land covering an area in excess of 200m<sup>2</sup> and with a total capacity exceeding 25 000 tons".*

Listed Activity No. 10: *"The construction of a facility for a waste management activity listed in Category B of this Schedule (not in isolation to associated waste management activity)."*

Activity 14: Listing Notice 1 (R. 983, 4 December 2014) (NEMA EIA)

*"The development of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or not exceeding 500 cubic metres"*

Activity 15: Listing Notice 2 (R. 984, 4 December 2014) (NEMA EIA)

*"The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for-*

- (i) The undertaking of a linear activity; or*
- (ii) Maintenance purposes undertaken in accordance with a maintenance management plan".*

Activity 4 (c) (vi): Listing Notice 3 (R. 985, 4 December 2014) (NEMA EIA)

*"The development of a road wider than 4 metres with a reserve less than 13.5 metres.*

*In Gauteng: Sensitive areas identified in an environmental management framework adopted by relevant environmental authority".*

Activity 10 (c) (vi): Listing Notice 3 (R. 985, 4 December 2014) (NEMA EIA)

*"The development of facilities or infrastructure for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of 30 but not exceeding 80 cubic metres. In Gauteng: "Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority."*

### 3. Appeal of Integrated Environmental Authorisation

- a. **Verref** must notify every registered interested and affected party, in writing and within **fourteen (14) days**, of receiving the Department's decision to issue an Integrated Environmental Authorisation of the activity.
- b. The notification referred to in condition 3(a) above must –
  - i. Specify the date on which the Integrated Environmental Authorisation was issued;
  - ii. Inform the interested and affected party of the appeal procedure; and
  - iii. Advise the interested and affected party that a copy of the Integrated Environmental Authorisation and reasons for the decision will be furnished on request.

The granting of this Integrated Environmental Authorisation is subject to the conditions set out below.

### 4. Conditions

#### 4.1 Scope of the Integrated Environmental Authorisation

- a. Authorisation of the activity is subject to the conditions contained in this Integrated Environmental Authorisation, which conditions form part of the Integrated Environmental Authorisation and are binding to **Verref**.
- b. The Integrated Environmental Authorisation is for the development and operation of a new, privately owned waste disposal facility and associated infrastructure at the remaining extent of Portion 81 of the Farm Rietfontein 128 IR, which will cover an area of approximately 108 hectares in extent with an estimated airspace below ground for the landfill of approximately 13.7 million cubic metre with the final cell height of **1m above** ground level.



- c. The proposed Class B waste disposal site will allow the disposal of only non-recyclable general municipal waste. The proposal will include the development of the following infrastructures:
- i. Disposal cells;
  - ii. Pollution control ponds;
  - iii. Leachate collection systems;
  - iv. Stormwater and screening berms;
  - v. Site access and security facilities;
  - vi. Internal access roads;
  - vii. Administration and ablution buildings;
  - viii. Weighbridge;
  - ix. Access control buildings;
  - x. Workshops and stores;
  - xi. Fuel storage facilities;
  - xii. Electricity, sewage and water infrastructure and connections;
  - xiii. Extraction of landfill gas facilities;
  - xiv. Laboratory to test incoming waste;
  - xv. Material recovery facility (MRF); and
  - xvi. Storage facilities for recyclable materials.
- d. The final revised Environmental Management Programme (EMPr) attached to the final Environmental Impact Assessment Report (EIAR) dated 12 January 2017 as Appendix 3 is hereby approved.
- e. Authorisation of the activity is subject to the mitigation measures contained in the approved EMPr and the conditions contained in this authorisation.
- f. The mitigating measures contained in the approved EMPr and the conditions contained in this authorisation form part of the Integrated Environmental Authorisation and are binding to **Verref**.
- g. The activity Authorised must only be carried out at the property indicated above.
- h. **Verref** must ensure that waste materials entering the disposal facility are sourced around City of Ekurhuleni, Gauteng and/or within the boundaries of South Africa.
- i. **Verref** is responsible for ensuring compliance with the conditions by any person acting on its behalf, including but not limited to, an agent, sub-contractor, employee or person rendering a service to **Verref**.
- j. Any changes to, or deviations from, the project description set out in this Integrated Environmental Authorisation must be approved, in writing, by the Department before such changes or deviations may be effected. In assessing whether to grant such approval or not, the Department may request such information as it deems necessary to evaluate the significance and impacts of such changes or deviations and it may be necessary for **Verref** to apply for further Integrated Environmental Authorisation in terms of the regulations.
- k. This Integrated Environmental Authorisation does not absolve **Verref's** responsibility to comply with any other statutory requirements that may be applicable to the undertaking of the activity.
- l. Should **Verref** fail to comply with any conditions of this authorisation and/or any other statutory requirements that may be applicable to the undertaking of the activity, including any compliance with the provisions of the National and Provincial Legislation and any other relevant Ordinance, Regulation, By-laws and relevant National Norms and Standards, the Department may review, revoke and/or suspend this authorisation at any time prior its expiry date.

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#### 4.2 Construction and further Development

- a. **Verref** must before commencement of the activity submit the design drawing reports for approval which must demonstrate compliance with the National Norms and Standards for the Disposal of Waste to Landfill, 2013, in respect of requirements including stability, drainage at atmospheric pressure, service life, total solute transport leading to action leakage rates definition, chemical compatibility with geodrains and Geosynthetic Clay Liners and the independent construction quality assurance.



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- b. **Verref** must ensure that construction and further developments of new cells are undertaken in accordance with the Class B containment barrier design as indicated in the National Norms and Standards for Disposal of Waste to Landfill, 2013 and meet the following requirements **of the Department of Water and Sanitation: Engineering Services of 19 August 2013:**
  - i. *The creep collapse potential of the synthetic drainage material in both the under drains and Landfill Conceptual Design (LCD) must be shown by Verref to meet the service life and post closure time (i.e. 90 years) performance required;*
  - ii. *The service life of the LCD for Municipal Solid Waste with respect to precipitate and biofouling be demonstrated or alternatively replaced with prescriptive granular Leachate Collection System and filter;*
  - iii. *Liner temperature prediction is confirmed and monitored; and*
  - iv. *The factor of safety for stability on the side walls in particular be confirmed."*
- c. Construction and further development within the site must be carried out under the supervision of a Professional Engineer, registered under the Engineering Profession of South Africa Act, 2000 (Act No.46 of 2000), and must be constructed in accordance with recognised civil engineering practice.
- d. After construction works of the site or further development within the site, the **Verref** must notify the Department thereof and the person referred to in condition 4.2(c) must submit a certificate or alternatively a letter to the Department that the construction of the site or further development within the site, as proposed by **Verref** and approved by the Department, is in accordance with recognised civil engineering practice and the requirements in its Integrated Environmental Authorisation, before disposal may commence on the site.
- e. **Verref** must ensure that the slopes of the sides are constructed and maintained in such a manner that the occurrence of erosion is prevented.
- f. Works must be constructed and maintained on a continuous basis by **Verref** to divert and drain from the site in a legal manner, all runoff water arising on **land adjacent to the site and especially around the upstream side of the site**, which could be expected as a result of the estimated maximum precipitation during a period of **twenty four (24) hours** with an average frequency of once in **fifty (50) years**. Such works must, under the said rainfall event, maintain a freeboard of 0.8 metre.
- g. Works must be constructed and maintained on a continuous basis by the **Verref** to 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 to prevent such runoff water from coming into contact with leachate from the site. Such works must, under the said rainfall event, maintain a freeboard of 0.8 metre and be lined to the satisfaction of the Department, in order to prevent pollution to groundwater.
- h. Runoff water must comply with the quality requirements as prescribed by the Department, which may be determined from time to time and must be drained from the site in a legal manner.
- i. Runoff water which does not comply with the quality requirements applicable in terms of condition 4.2. (h) and all sporadic leachate from the site must, by means of works which must be constructed and maintained on a continuous basis by the **Verref** be evaporated in dams which comply with the requirements outlined in terms of condition 4.2.(a).
- j. Any development which occurs within 1:100 year flood line and/or within 500 m from the boundary of a wetland must apply for a water use license/authorisation with the Department of Water and Sanitation in terms of section 21 of the National Water Act, 1998.
- k. The site must be constructed in accordance with recognised civil engineering practise to ensure that it remains stable.
- l. **Verref** must ensure that the maximum height of the disposal site **does not exceed 1 m above ground level** after rehabilitation in order to mitigate air quality impacts as outlined in the Air Quality/ Atmospheric Impact Report conducted by Raylene Watson dated 22 April 2013.
- m. **Verref** must register the disposal site as a waste landfill on Gauteng Waste Information System (GWIS) in terms of the Gauteng Waste Information Regulations (GWIR), 2004.



#### 4.3 Road Construction

- a. All fuel and lubricants or hazardous substances to be used during construction activities must be stored in a bunded area in accordance with applicable standards. The storage and handling facilities must also comply with all regulations governing the storage and handling of those materials.
- b. Dust mitigation measures must be implemented throughout the construction phase.
- c. No stockpile material must be stored or placed within any drainage line on site.
- d. No unauthorised access must be allowed on site during the construction phase. Appropriate notification signs must be erected, warning the residents, visitors and road users about the hazard around the construction site and the presence of heavy vehicles.
- e. It must be mandatory for all personnel and construction team members to wear appropriate Personal Protective Equipment (PPE).
- f. A detailed storm water management plan must be approved by Ekurhuleni Metropolitan Municipality.
- g. Should any heritage resources of any nature be uncovered, during construction, the development must stop, SAHRA and/ or professional Heritage Specialists must be contacted immediately for investigations.

#### 4.4 Material Recovery Facility

- a. Verref must ensure that the Material Recovery Facility (MRF) is constructed in accordance with the layout-plan and elevation as outlined in figure 3-7 and figure 3-8 of the final revised EIAR dated 13 January 2017.
- b. Verref must register the MRF as a waste recovery facility on GWIS in terms of the GWIR, 2004.
- c. Verref must ensure that waste processed at the MRF is taken to the licenced recycling facilities for further processing and re-use.

#### 4.5 Storage of waste

- a. Verref must register as a waste transfer station on the GWIS in terms of the GWIR, 2004.
- b. Verref must register and comply with the requirements stipulated in terms of the National Norms and Standards for the Storage of Waste, 2013.

#### 4.6 Storage of Dangerous Goods

- a. It was noted during the review that impacts associated with Activity 14: Listing Notice 1 (R. 983, 4 December 2014) and Activity 10 (c) (vi): Listing Notice 3 (R. 985, 4 December 2014), **were not assessed and mitigation measures were not identified**. Should Verref wants to undertake these activities on site, Verref must apply to the Department for a separate environmental authorisation in terms of NEMA Regulation, 2014, as amended.
- b. Verref must take all reasonable steps to ensure that the storage areas have a firm, waterproof base and drainage system. The drainage system must be designed and managed in a way that there is no escape of contaminants into the environment.
- c. Verref must take all reasonable steps to ensure that the integrity of the waterproof base and walls are routinely monitored and corrective actions are taken before containment integrity is breached.

#### 4.7 Management of Activity

##### 4.7.1 General Management

- a. The activities must be managed and operated:
  - i. According to the Minimum Requirements for Waste Disposal by Landfill, Second Edition 1998 DWAF (MR).
  - ii. In accordance with conditions of this Integrated Environmental Authorisation and with other written instruction by the Department;
  - iii. In accordance with the site operational plan; and



- iv. By a sufficient number of persons who are competent in respect of the responsibilities to be undertaken by them in connection with the operation of the activities.
- b. Any persons having duties that are or may be affected by the matters set out in this Authorisation must have convenient access to a copy of the Integrated Environmental Authorisation, kept at or near the place where those duties are carried out.
- c. The maximum speed limit must not exceed 20km/h within the site to avoid accidents and to control traffic.
- d. Traffic disturbance during the landfill construction and operational phases must be kept to a minimum.
- e. Current and new staff must be trained for the work they will perform and on the potential impacts the activity will have on the environment.
- f. Drop-off and pick-up zones for transportation of bulk waste/product must be clearly demarcated and bounded.

#### 4.7.2 Appointment of Waste Management Control Officer

- a. A Waste Management Control Officer (WMCO) must be appointed, who will monitor and ensure compliance and correct implementation of all mitigation measures and provisions as stipulated in the Integrated Environmental Authorisation and EMPr, prior to any rehabilitation and closure activities being undertaken on site.
- b. The WMCO shall be responsible for the management of operations and maintenance of the landfill site in accordance to applicable legislations and regulations.
- c. The WMCO shall be responsible for the supervision, budgeting, planning, development, constructions and operations to ensure that waste is managed in efficient, effective and environmentally sound manner.
- d. The WMCO must:
  - i. Report any non-compliance with any Integrated Environmental Authorisation conditions or requirements or provisions of NEM:WA to the Department within **twenty one (21) days** of the incident; and
  - ii. Monitor the construction of the infrastructure to ensure that the layout plans are in accordance to the designs and record important findings of the site inspection.
- e. The duties and responsibilities of the WMCO must not be seen as exempting **Verref** from the legal obligations in terms of this Integrated Environmental Authorisation.

#### 4.7.3 Emergency Preparedness Plan

- a. **Verref** must have in place a disaster risk management and emergency preparedness plan, which must be implemented, maintained, and reviewed after each emergency, major incident and annually when conducting an audit. The plan must, among others, include a contingency response protocol that must be implemented during events or incidences such as:
  - i. Natural disasters such as floods;
  - ii. Vehicle/machinery fire or malfunction;
  - iii. Site fires; and
  - iv. Industrial action.
- b. The contingency response protocol must contain updated contact details of police, ambulance and any emergency centre closer to the site.

#### 4.7.4 Access Control

- a. **Verref** must ensure that the construction of access control is undertaken in terms of the recommendations outlined in the Traffic Impact Study dated 09 November 2012, which must be forwarded to City of Ekurhuleni for approval.
- b. Weatherproof, durable and legible notices in at least three official languages applicable in the area, must be placed at the entrance of the site. These notices must prohibit unauthorised entry and state the hours of operation, the name, address and contact details of **Verref** and the person responsible for the management of the landfill site.



- c. A minimum height of 1.8 meters fence, with gates of the same height at all entrances must be maintained, to reasonably prevent unauthorised entry.
- d. **Verref** must take all reasonable measures to maintain roads in a condition that ensures unimpeded access to the site for vehicles transporting waste and to keep the roads free from waste.
- e. **Verref** must ensure effective access control by placing security personnel, weighbridge controllers and waste spotters.
- f. A register must be kept for all vehicles entering the landfill site, by the security personnel.
- g. No visitors may enter the operational areas of the site unless in the presence of a competent municipal official.
- h. **Verref** must ensure that no waste transport vehicle may enter the site operational areas without having being over the weighbridge. Unexpected vehicle/s must be directed to a waiting area before the vehicle/s proceed to disposal area. For any vehicle/s turned away a log book must be kept with vehicle/s details.
- i. **Verref** must ensure that all entrance gates are manned during the hours of operation and locked outside the hours of operation.
- j. **Verref** must ensure effective access control.

#### 4.7.5 Permissible waste

- a. The site may only accept municipal general waste.
- b. Permissible waste for disposal exclude waste listed in Annexure III of this authorisation.
- c. Permissible waste for the material recovery facility are recyclable wastes.
- d. **Verref** must ensure that a strict waste acceptance procedure is applied to ensure that non-permissible waste types do not enter the site.

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#### 4.8 Impact Management

- a. **Verref** must ensure that litter or mud arising from the landfill operations does not cause pollution and is cleared from affected areas outside the site regularly.
- b. **Verref** must control wind-blown waste by picking up litter from fences and vegetation on a daily basis.
- c. **Verref** must ensure that putrescible waste (food waste) is disposed of in a special cell or at the base of the working phase and must be covered immediately.
- d. **Verref** must ensure that emissions from the landfill operations are free from odour at levels likely to cause annoyance outside the site, as perceived by an authorised officer of the Department and Interested and Affected Parties.
- e. **Verref** must ensure that there is an effective storm water management around the site thereby intercepting all seepage from the site into the storm water system and no leachate must enter this system.
- f. **Verref** must ensure that there is sufficient daily cover material to isolate the waste from the environment, for which a minimum thickness equivalent to the effective covering of 150mm of compacted soil or other approved cover material is applied.
- g. Waste outside the site must be collected on weekly basis to maintain level 1 of cleanliness as outlined in the Gauteng Waste Collection Standards, 2010.

#### 4.9 Operation

- a. Waste disposal must be done in accordance with the relevant minimum requirements, site operation plan, the condition of this Integrated Environmental Authorisation and any other written instruction by the Department.
- b. **Verref** must ensure that the site is operated in such a manner that nuisance conditions or health hazards, or the potential creation of nuisance conditions or health hazards are prevented.
- c. **Verref** must make use of removable fences to control windblown waste.
- d. **Verref** must apply sufficient dust control measures to prevent wind-blown dust from causing nuisance conditions or health hazards.

- e. **Verref** must provide all its employees on site with a full set of protective equipment (PPE) and conduct medical check-ups on an annual basis.
- f. A Sixteen point Material Safety Data Sheets (MSDSs), as required by the Occupational Health and Safety Act, 1993( Act No. 85 of 1993) must be available on site for all chemicals and hazardous substances stored or used on-site.

#### **4.10 Monitoring**

##### **4.10.1 Water Monitoring**

- a. A monitoring borehole network for the site must be established and maintained by **Verref** according to final revised EIAR dated 13 January 2017 prepared by AECOM SA (Pty) Ltd and to the satisfaction of the Department so that unobstructed sampling, as required in term of this Integrated Environmental Authorisation, can be undertaken.
- b. **Verref** must establish a carefully designed groundwater monitoring system and programme for the larger site that would be able to differentiate between different contamination sources.
- c. **Verref** must ensure that monitoring boreholes must be clearly marked, numbered and equipped with lockable caps.
- d. The Department reserves the right to take water samples at any time and to analyse these samples or have them analysed.
- e. Where the Department has taken water samples, **Verref** must be furnished with a report detailing the results of the water sampling.
- f. Surface water monitoring must be performed in all storm water drains on and adjacent to the site at locations selected in conjunction with the Department and at such a frequency as determined by the Department.
- g. Groundwater quality must be the same as per background analysis and if groundwater quality deteriorates remedial action must be taken.

##### **4.10.2 Background monitoring**

Samples from the borehole where the ground water in the borehole is at an expected higher hydraulic pressure level than the hydraulic pressure level of the ground water under the site; must be considered as background monitoring. Background ground water monitoring must be conducted during each monitoring occasion in terms of condition 4.10.3, 4.10.4 or 4.10.1 for the water quality variables listed in Annexure II.

##### **4.10.3 Detection Monitoring**

Monitoring for groundwater and surface water quality must be conducted

- a. For variables listed in Annexure I – quarterly
- b. For variables listed in Annexure II –annually, or
- c. Such frequency as may be determined by the Department.

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##### **4.10.4 Investigative Monitoring**

If it is evident that a water quality variable listed under the detection monitoring programme, as referred to in condition 4.10.3, shows an increasing trend, **Verref** must initiate a monthly monitoring programme for the water quality listed in Annexure II until such time that the variables are not showing an increasing trend.

##### **4.10.5 Post-closure Monitoring**

Groundwater monitoring by **Verref**, in accordance with condition 4.10.3 or 4.10.4, must commence immediately upon closure of the site and be maintained for a period of 30 years, or such lesser period as may be determined by the Department.



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#### 4.10.6 Further Investigations

If it is evident that groundwater and/or surface water pollution have occurred or may possibly occur, Verref must conduct the necessary investigations and implement additional monitoring and rehabilitation measures which must be to the satisfaction of the Department.

#### 4.10.7 Gas Monitoring

- a. Verref must ensure that gas monitoring on site is conducted in accordance with the Minimum Requirements as well as Closure Permits, Records of Decision and /or monitoring plans for the site. Gas monitoring must be conducted on a quarterly basis or on intervals as determined by the Department.
- b. Verref must ensure that gas monitoring is carried out by a trained personnel using a calibrated portable gas analyser, which records methane, carbon dioxide and oxygen concentrations by volume. The number of the gas probes and the corresponding gas levels, as well as atmospheric pressure must be recorded and entered into an electronic spreadsheet for storage, analysis and graphical presentation purposes.

#### 4.11 Methods of Analysis

- a. Verref must carry out all tests required in terms of this Integrated Environmental Authorisation in accordance with methods prescribed by and obtainable from the South African Bureau of Standards (SABS), referred to in the Standards Act, 2008 (Act No. 8 of 2008), to analyse the samples taken under the monitoring programmes specified in condition 4.10.3.
- b. Verref must only use another method of analysis if written proof that the method is at least equivalent to the SABS method, is submitted to the Department and approved.

#### 4.12 Auditing

##### 4.12.1 Internal Audits

Internal audits must be conducted bi-annually (wet and dry season) by Verref and on each audit occasion, an official report must be compiled by the relevant auditor to report the findings of the audits, which must be made available to the external auditor specified in condition 4.12.2 (a) and the Department, according to conditions 4.12.3 and 4.12.

##### 4.12.2 External Audits

- a. Verref must appoint an independent external auditor to audit the site annually and this auditor must compile an audit report documenting the findings of his/her audit, which must be submitted to the Department according to condition 4.12.2 (b).
- b. The audit report must
  - i. Specifically state whether conditions of this Integrated Environmental Authorisation are adhered to.
  - ii. Include an interpretation of all available data and test results regarding the operation of the site and all its impacts on the environment.
  - iii. Specify target dates for the implementation of the recommendations Verref to achieve compliance.
  - iv. Contain recommendations regarding non-compliance or potential non-compliance and must specify target dates for the implementation of the recommendations by Verref and whether corrective action taken for the previous audit none conformities was adequate.
  - v. Show monitoring results graphically and conduct trend analysis.
- c. Each external audit report referred to in condition 4.12.2 (b) above must be presented to the monitoring committee within **sixty (60) days** of the audit and further submitted together with meeting minutes to the Department within **thirty (30) days** from the date of the meeting.

##### 4.12.3 Departmental audits and inspections

- a. The Department reserves the right to audit and / or inspect the site at any time and at such frequency as the Department may decide, or to have the site audited and inspected.



- b. **Verref** must make any records or documentation available to the Department upon request, as well as any other information the Department may require.
- c. The findings of these audits or inspections must be made available to **Verref** within **thirty (30) days** of the end of the audit or inspection. Information from the audits must be treated in accordance with the Promotion of Access to Information Act, 2000 (Act No. 2 of 2000).

#### 4.13 Records

- a. **Verref** must keep records and update all the information and submit this information to the Department on an annual basis.
- b. **Verref** must ensure that records in terms of volume and the nature of all wastes recovered at the MRF and the wastes disposed at the disposal site are maintained and reported on.
- c. All records required or resulting from activities required by this Integrated Environmental Authorisation must:
  - i. Be legible;
  - ii. Be made as soon as reasonably practicable and should form part of the external audit report;
  - iii. If amended, be amended in such a way that the original and any subsequent amendments remain legible and are easily retrievable; and
  - iv. Be retained in accordance with a documented procedure which is approved by the Department.
- d. **Verref** must record all borehole data and chemical analysis.
- e. Records demonstrating compliance must be maintained and made available to the Department upon written request.

#### 4.14 Reporting

- a. Reporting of waste quantities received, recovered and disposed must be done on Gauteng Waste Information System (GWIS) on a quarterly basis, by login on to [www.gwis.gpa.gov.za](http://www.gwis.gpa.gov.za)
- b. **Verref** must, within **twenty four (24) hours**, notify the Department of the occurrence or detection of any incident on the site which has the potential to cause, or has caused water pollution.
- c. **Verref** must, within **fourteen (14) days**, or a shorter period of time, from the occurrence or detection of any incident referred to in condition 4.10.3 (b), submit an action plan, which must include a detailed time schedule to the satisfaction of the Department of measures taken to –
  - i. Correct the impact resulting from the incident;
  - ii. Prevent the incident from causing any further impact; and
  - iii. Prevent a recurrence of a similar incident.
- d. In the event that measures have not been implemented within **twenty one (21) days** of the incident to address impacts caused by the incident referred to in condition 4.14 (b), or measures which have been implemented are inadequate, the Department may implement the necessary measures at the cost and risk of **Verref**.
- e. **Verref** must keep an incident report and complaints register, which must be made available to both external and Department for the purpose of their audits.
- f. The Department must be notified without delay in the case of the following:
  - i. Any malfunction, breakdown or failure of equipment or techniques, accident or fugitive emission which has caused, is causing or may cause significant pollution;
  - ii. The breach of this Integrated Environmental Authorisation; and
  - iii. Any significant adverse environmental and health effects.
- g. The Department must be notified within **seven (7) days** of any changes to the management of the site including the name of the incoming person together with evidence that such person has the required technical competence.
- h. **Verref** must apply for an amendment should the following changes:
  - i. trading name, registered name or registered office address;
  - ii. particulars of **Verref** 's ultimate holding company (including details of an ultimate holding where **Verref** has become a subsidiary);
  - iii. leasing or alienation of the site.



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- i. **Verref** must within **forty-eight (48) hours**, notify the Department of any sporadic leachate generated on account of unusual circumstances on the site.
- j. **Verref** must notify the Department of any significant/major environmental incidents on the site which has the potential to cause water pollution of the environment, health risk or nuisance conditions.

#### 4.15 Monitoring committee

- a. **Verref** must identify interested and affected parties and establish a functional monitoring committee for as long as disposal facility exists until after at least **two (2) years** after cessation of such activities.
- b. The Monitoring Committee must formulate terms of reference and code of conduct, according to the Minimum Requirements, Second Edition 1998 by DWAF.
- c. The Monitoring Committee must comprise of representatives of relevant interested and affected persons, the communities in the vicinity and **Verref**.
- d. The Monitoring Committee must meet at least twice a year and not later than **thirty (30) days** after the external audit report specified in condition 4.12.2 (b) has been submitted to the Department.
- e. **Verref** must keep minutes of all meetings of the Monitoring Committee and distribute these minutes to all members of the Monitoring Committee within **fourteen (14) days** after the meeting.
- f. The Department must be copied on the minutes of the Monitoring Committee Meetings and such minutes must be sent within **sixty (60) days** of the committee meeting.

#### 4.16 Commissioning of the activity

- a. This activity must commence within a period of **two (2) years** from the date of issue.
- b. If commencement of the activity does not occur within **two (2) years** the Integrated Environmental Authorisation lapses and a new application must be made in order for the activity to be undertaken.
- c. **Fourteen (14) days** written notice must be given to the Department that the activity will commence. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence.

#### 4.17 Site closure and decommissioning

- a. **Verref** must notify the Department within **one (1) year** prior to the intended closure of the site.
- b. Should unforeseen circumstances arise that result to an urgent closure of **Verref**, the Department must be notified within **fourteen (14) days**.

#### 4.18 Transfer of Integrated Environmental Authorisation

- a. Should **Verref** want to transfer holder-ship of this Integrated Environmental Authorisation; it must apply in terms of Section 52 of the National Environmental Management: Waste Act, 2008 (Act No 59 of 2008).
- b. Any subsequent Integrated Environmental Authorisation holder will be bound by the conditions of this Integrated Environmental Authorisation.

#### 4.19 Expiry, Validity, Renewal and Review Period

- a. This Integrated Environmental Authorisation is valid for a period of **twenty (20) years** from the date of issue (validity period) and the Integrated Environmental Authorisation renewal process must be initiated with the Department **one (1) year** prior to the expiry of the validity period.
- b. This Integrated Environmental Authorisation will be reviewed every **five (5) years** from the date of issue or at any time before or after that date. Based on the results of the review, especially compliance to Integrated Environmental Authorisation conditions or recommendations from the audit reports and/or changing legislation, the Integrated Environmental Authorisation could be amended or withdrawn.

#### 4.20 General conditions

- a. A copy of this Integrated Environmental Authorisation must be kept at the property where the activity will be undertaken. The Integrated Environmental Authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of **Verref** who works or undertakes work at the property.
- b. **Verref** must notify the Department, in writing and within **twenty four (24) hours**, if any of the conditions of this Integrated Environmental Authorisation cannot be adhered to. In all other cases, **Verref** must notify the Department, in writing, within **thirty (30) days** if a condition of this Integrated Environmental Authorisation is not adhered to. Any notification in terms of this condition must be accompanied by reasons for the non-compliance.
- c. Non-compliance with a condition of this Integrated Environmental Authorisation may result in criminal prosecution or other actions provided for in the National Environmental Management: Waste Act, 2008 (Act No 59 of 2008) and the Regulations.
- d. This Integrated Environmental Authorisation must not be construed as exempting **Verref** from compliance with the provisions of the National and Provincial Legislation and any relevant Ordinance, Regulation, By-laws and relevant National Standards and Norms.
- e. Transgression of any condition of this Integrated Environmental Authorisation could result in the validity of the Integrated Environmental Authorisation being terminated by the Department.
- f. Any committees appointed in terms of the application or any other public authority or organisation will not be held responsible for any damages or losses suffered, **Verref** or its successor in title in any instance where construction or operation are to be temporarily or permanently stopped for reasons of non-compliance.
- g. In terms of section 28 and 30 of the National Environmental Management, 1998 (Act No. 107 of 1998), and section 19 and 20 of the National Water Act, 1998 (Act No. 36 of 1998), any costs incurred to remedy environmental damage must be borne by the person responsible for the damage. It is therefore imperative that **Verref** reads through and understand the legislative requirements pertaining to the project. It is **Verref** responsibility to take reasonable measures which include informing and educating contractors and employees about environmental risks of their work and training them to operate in an environmental acceptable manner.

Date of Integrated Environmental Authorisation: 29/9/2017

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**Annexure I: water quality variables required for background (condition 4.10.2) and detection (condition 4.10.3 (a)) monitoring:**

Monitor at quarterly intervals for:

Chemical Oxygen Demand (COD)  
Bicarbonate  
Boron (B)  
Dissolved Organic Carbon  
Electrical Conductivity (EC)  
Flouride  
pH  
Chlorides (Cl)  
Nitrate ( $\text{NO}_3\text{-N}$ )  
Ammonia ( $\text{NH}_3\text{-N}$ )  
Phosphate ( $\text{PO}_4$ )  
Calcium (Ca)  
Magnesium (Mg)  
Sodium (Na)  
Potassium (K)  
Sulphate ( $\text{SO}_4$ )  
Strontium

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**Annexure II: water quality variables required for detection (conditions 4.10.2 (b) and investigative (conditions 4.10.4) monitoring:**

Monitor at bi-annual intervals for:

Ammonium  
Bicarbonate  
Magnesium (Mg)  
Chromium (Total) (Cr)  
Aluminium  
Flouride (F)  
Arsenic  
Sodium (Na)  
Nitrate (as N) ( $\text{NO}_3\text{-N}$ )  
Sulphate ( $\text{SO}_4$ )  
Potassium (K)  
Nickel  
Phosphate ( $\text{PO}_4$ )

Calcium (Ca)  
Copper  
Chloride (Cl)  
Cadmium (Cd)  
Nitrite  
Boron (B)  
pH  
Strontium  
Electrical Conductivity (EC)  
Dissolved Organic Carbon  
Zinc  
Chemical Oxygen Demand (COD)

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**Annexure III: List of waste which may not be disposed at New Tonk Meter Road WDF**

1. Recyclable waste.
2. Waste imported from outside South Africa.
3. Waste where specific control has been established in terms of the Nuclear Energy Act, 1999 (Act 46 of 1999).
4. Waste types controlled in terms of the Minerals and Petroleum Resources Development Act, 2002 (Act 28 of 2002) and the Electricity Act, 1987 (Act 41 of 1987), unless written permission has been obtained from the HOD.
5. Waste which is defined, according to the Minimum Requirements, as an extreme hazard or Hazard Group 1 (HG1); high hazard or Hazard Group 2 (HG2); moderate hazard or Hazard Group 3 (HG3) and low hazard or Hazard Group 4 (HG4).
6. Flammable wastes, with a closed cup flash point less than 61°C.
7. Corrosive substances, as defined and described in the Minimum Requirements as Class 8 (1998 edition: page 6-8, Diagram III).
8. Oxidizing substances and organic peroxides, as defined and described in the Minimum Requirements as Class 5 (1998 edition: page 6-8, Diagram III).
9. Any waste with a substance which is a Group A and/or Group B carcinogen/mutagen. Group A carcinogens/mutagens have been proven in humans, both clinical and epidemiological. Group B carcinogens/mutagens have been proven without doubt in laboratory animals.
10. Any waste with a substance at a concentration greater than 1% where the substance is a Group C and/or Group D carcinogen/mutagen. Group C carcinogens/mutagens have shown limited evidence in animals. Group D carcinogen/mutagen - the available data is inadequate and doubtful.
11. Any infectious waste which is generated during the diagnosis, treatment or immunization of humans or animals; in the research pertaining to this; in the manufacturing or testing of biological agents including blood, blood products and contaminated blood products, cultures, pathological wastes, sharps, human and animal anatomical wastes and isolation wastes that contain infectious substances.
12. All materials which fall in Class 1 (explosives), Class 2 (compressed gases) and Class 7 (radioactive materials), as defined and described in the Minimum Requirements.
13. Any waste with a pH less than 6 or greater than 12.
14. Any waste which is difficult to analyze and classify.
15. Any complexes of heavy metal cations, paint and paint sludges, or laboratory chemicals.
16. Organic or inorganic element or compound which may have a definite acute or chronic negative effect on human health and/or the environment, due to its toxic, physical, chemical or persistent characteristics.

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## Annexure IV: Reasons for Decision

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### 1. Background

The applicant, **Verref** applied for an Integrated Environmental Authorisation to carry out the following activity –

The proposed development of a new, privately owned waste disposal facility and associated infrastructure at the remaining extent of Portion 81 of the Farm Rietfontein 128 IR, which falls within the jurisdiction of City of Ekurhuleni hereafter referred to as ("the site"), a listed activity in terms of Government Notice R 921, 29 November 2013, of the National Environmental Management: Waste Act, 2008 (Act No 59 of 2008) as amended, Government Notice R983 of the Environmental Impact Assessment Regulation, 2014, as amended and the National Environmental Management Act ,1998 (Act No. 107 of 1998), as amended.

### 2. Information considered in making the decision

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

- a. The application form dated 28 November 2011.
- b. The information contained in the final Scoping Report dated June 2012.
- c. The information contained in the final Environmental Impact Assessment Report (EIAR) dated June 2013.
- d. The information contained in the ROD from the Department of Water and Sanitation (DWS) dated 13 December 2013.
- e. Refusal of Waste Management Licence dated 25 July 2014.
- f. Letter from MEC upholding the decision dated 12 March 2015.
- g. Requirements letter from the Department dated 21 May 2015.
- h. Additional information contained in the Method Statement: Ground Water Quality Monitoring dated 16 May 2016.
- i. Notification letter for the change of EAP dated 01 June 2016.
- j. Acknowledgement letter for the notification of change of EAP dated 30 June 2016.
- k. The objectives and requirements of relevant legislation including section 2 of the National Environmental Management Act, 1998 (Act No. 107 of 1998).
- l. The information contained in the final revised Environmental Impact Assessment Report dated 12 January 2017.
- m. Comments from Impact Management dated 03 April 2017.
- n. Comments and Recommendations from DWS dated 19 June 2017.
- o. The finding of the site visit conducted by Mr. Rhulani Chauke, Mr. Takalani Mavhunga (GDARD), Mr. Mike Yeats (Vereeniging Refractories (Pty) Ltd (Verref)) and Mr. Mike Howard (AECOM SA (Pty) Ltd) on 21 July 2017.
- p. Comments from City of Ekurhuleni which were received by the Department on 15 August 2017.

### 3. Key factors considered in making the decision

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

- a. The activity is proposed to be undertaken at the previously mined and/or disturbed areas (i.e. quarries) and the future proposed mining areas.
- b. The construction and operation of disposal cells will provide a cost effective means of rehabilitating the mined areas and future proposed mining areas



- c. The MRF will contribute highly to the reduction of the amount of recyclable general waste from being landfilled.
- d. No significant environmental impacts are associated with the proposed activity if the mitigation measures contained in the approved EMPr and the conditions outlined in this Integrated Environmental Authorisation are adhered to.
- e. The implementation of mitigation measures highlighted in the approved EMPr and the conditions outlined in this Integrated Environmental Authorisation will reduce potential negative impact to acceptable levels.
- f. The site will be managed using the waste management hierarchy, i.e. disposal of waste will be the last resort.

#### 4. Findings

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

- a. The land on which the activity is operating is suitable for the existing activity.
- b. The socio-economic aspect of the activity will ensure creation of employment and eradication of poverty.
- c. The proposed activity has been clearly demonstrated by the applicant.
- d. Increased and continual waste recycling in the province will increase landfill airspace.

In view of the above, the Department is satisfied that, subject to compliance with the conditions contained in the Integrated Environmental Authorisation, the proposed activity will not conflict with the general objectives of integrated environmental management laid down in Chapter 5 of the National Environmental Management Act, 1998 and that any potentially detrimental environmental impacts resulting from the proposed activity can be mitigated to acceptable levels.

**The Integrated Environmental Authorisation is accordingly granted**

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