



REFERENCE: 16/3/3/1/A5/11/2038/20

DATE OF ISSUE: 09 February 2021

ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND THE ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): PROPOSED INSTALLATION OF DIESEL STORAGE TANKS, BACKUP GENERATORS AND ASSOCIATED INFRASTRUCTURE ON ERF 25575 IN BRACKENGATE 2 INDUSTRIAL PARK, BRACKENFELL

With reference to your application for the abovementioned, find below the outcome with respect to this application.

DECISION

By virtue of the powers conferred on it by the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") and Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activities specified in section B below with respect to the Preferred Activity Alternative, described in the Basic Assessment Report ("BAR"), dated October 2020.

The applicant for this Environmental Authorisation is required to comply with the conditions set out in Section E below.

A. DETAILS OF THE APPLICANT FOR THIS ENVIRONMENTAL AUTHORISATION

Teraco Data Environments (Pty) Ltd.
c/o Mr. Jan Hnizdo
Postnet Suite 338
Private Bag X2020
ISANDO
1600

Tel.: (011) 573 2800
Email: jan@teraco.co.za

The abovementioned applicant is the holder of this Environmental Authorisation and is hereinafter referred to as "**the holder**".

B. LIST OF ACTIVITIES AUTHORISED

Listed Activities	Activity/Project Description
<p>Listing Notice 1 of the EIA Regulations, 2014 (as amended)–</p> <p>Activity Number: 2</p> <p>Activity Description: <i>“The development and related operation of facilities or infrastructure for the generation of electricity from a non-renewable resource where—</i></p> <p><i>(i) the electricity output is more than 10 megawatts but less than 20 megawatts; or</i></p> <p><i>(ii) the output is 10 megawatts or less but the total extent of the facility covers an area in excess of 1 hectare”.</i></p>	<p>Eleven Diesel generators will be installed to provide backup electricity of not more than 19,8 megawatts.</p>
<p>Listing Notice 1 of the EIA Regulations, 2014 (as amended)-</p> <p>Activity Number: 14</p> <p>Activity Description: <i>“The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres”.</i></p>	<p>Six underground diesel fuel tanks with a storage capacity of 80 000 litres each and 21 aboveground diesel tanks with a storage capacity of 800 litres each will be installed (total combined storage capacity of not more than 496.800 litres/496.8 cubic metres)</p>

The abovementioned list is hereinafter referred to as “**the listed activities**”.

The holder is herein authorised to undertake the following alternative that includes the listed activities relating to the development:

The proposed development entails the installation and operation of:

- eleven diesel generators placed within a generator plant room with acoustic treated walls and roof to provide immediate back-up electricity of not more than 19,8 megawatts;
- six underground diesel fuel tanks with a storage capacity of approximately 80 000 litres each; and
- twenty-one aboveground diesel tanks with a storage capacity of approximately 800 litres each.

The development footprint of the proposed development and associated infrastructure will be approximately 1 350m².

C. SITE DESCRIPTION AND LOCATION

The listed activities will be undertaken on Erf 25575, which forms part of the existing Brackengate II Light Industrial Business Park in Brackenfell. The Brackengate II Light Industrial Business Park is located on the corner of the R300 and Bottelary Road, with Cilmor Street forming the northern boundary and Cecil Morgan Road forming the eastern boundary.

The geographic coordinates of Erf 25575, Brackenfell are given below:

33° 54' 23.47" South, 18° 40' 42.49" East

The SG digit code:

Erf 25575, Brackenfell	C06700040002557500000
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Refer to Annexure 1: Locality Plan

The above is hereinafter referred to as "**the site**".

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Delron Consulting (Pty) Ltd
c/o Mr. Pieter De Lange
P. O. Box 177
Woodlands
0072

Tel.: 082 571 5396

Email: pieter@delron.co.za

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

1. The holder is authorised to undertake the listed activities specified in Section B above in accordance with and restricted to the preferred alternative, described in the BAR dated October 2020 on the site as described in Section C above.
2. Authorisation for the activities is subject to compliance with the conditions set out in this Environmental Authorisation. The holder must ensure compliance with the conditions by any person acting on his/her behalf, including an agent, sub-contractor, employee or any person rendering a service to the holder.
3. The holder must commence with, and conclude, the listed activities within the stipulated validity period which this Environmental Authorisation is granted for, or this Environmental Authorisation shall lapse and a new application for Environmental Authorisation must be submitted to the competent authority.

This Environmental Authorisation is granted for–

- (a) A period of five (**5**) years, from the date of issue, during which period the holder must commence with the authorised listed activities; and
 - (b) A period of ten (**10**) years, from the date the holder commenced with the authorised listed activities, during which period the authorised listed activities for the construction phase, must be concluded.
4. The activities that have been authorised must only be carried out at the site described in Section C above in terms of the approved "Environmental Management Programme" ("EMPr").
 5. Any changes to, or deviations from the scope of the description set out in Section B and Condition 2 above must be approved, in writing, by the competent authority before such changes or deviations may be implemented. In assessing whether to grant such acceptance/approval or not, the competent authority may request such information to evaluate the significance and impacts of such changes or deviations, and it may be necessary for the holder to apply for further authorisation in terms of the applicable legislation.

Notification of authorisation and right to appeal

6. The holder of the authorisation must in writing, within 14 (fourteen) calendar days of the date of this decision –
 - 6.1 notify all registered Interested and Affected Parties of –
 - 6.1.1 the outcome of the application;
 - 6.1.2 the reasons for the decision;
 - 6.1.3 the date of the decision; and
 - 6.1.4 the date of issue of the decision;
 - 6.2 draw the attention of all registered Interested and Affected Parties to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2014 (as amended);
 - 6.3 draw the attention of all registered Interested and Affected Parties to the manner in which they may access the decision; and
 - 6.4 provide the registered Interested and Affected Parties with:
 - 6.4.1 the name of the holder (entity) of this Environmental Authorisation,
 - 6.4.2 name of the responsible person for this Environmental Authorisation,
 - 6.4.3 postal address of the holder,
 - 6.4.4 telephonic and fax details of the holder,
 - 6.4.5 e-mail address, if any;
 - 6.4.6 the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered Interested and Affected Parties in the event that an appeal is lodged in terms of the National Appeal Regulations, 2014 (as amended).

Commencement

7. The listed activities, including site preparation, must not be commenced with within 20 (twenty) calendar days from the date the applicant notified the registered Interested and Affected Parties of this decision.
8. In the event that an appeal is lodged with the Appeal Administrator, the effect of this Environmental Authorisation is suspended until such time as the appeal is decided. In the instance where an appeal is lodged, the holder must not commence with the activity, including site preparation, until such time as the appeal has been finalised and the holder is authorised to do so.

Written notice to the competent authority

9. A written notice of seven calendar days must be given to the competent authority before commencement of construction activities. Commencement for the purpose of this condition includes site preparation.
 - 9.1 The notice must make clear reference to the site details and EIA Reference number given above.
 - 9.2 The notice must also include proof of compliance with the following conditions described herein:

Conditions: 6, 7, 10.1, 14, 20 and 22.

Management of activity

10. The EMPr submitted as Appendix H of the BAR dated October 2020 is hereby approved. However, the following amendments must be made to the EMPr and must be implemented.

10.1 The Emergency Response Plan as included in Appendix C of the EMPr dated October 2020 must be submitted for comment to the City of Cape Town, before the authorised activities can be commenced with. A copy of the letter of comment from the City of Cape Town must be submitted to this Department for consideration.

10.1.1 Should any amendments to the Emergency Response Plan be requested in the City of Cape Town's comment, the Emergency Response Plan must be amended and the updated Emergency Response Plan must be included in the EMPr.

11. An application for amendment to the EMPr must be submitted to the competent authority in terms of Chapter 5 of the EIA Regulations, 2014 (as amended,) if any amendments are to be made to the outcomes of the EMPr, and these must only be implemented if the amended EMPr has been authorised by the competent authority.
12. The EMPr must be included in all contract documentation for all phases of implementation.
13. A copy of the Environmental Authorisation and the EMPr must be kept at the site where the listed activities will be undertaken. Access to the site referred to in Section C above must be granted and the Environmental Authorisation and EMPr must be produced to any authorised official representing the competent authority who requests to see these for the purposes of assessing and/or monitoring compliance with the conditions contained herein. The Environmental Authorisation and EMPr must be made available for inspection by any employee or agent of the applicant who works or undertakes work at the site.

Monitoring

14. The holder must appoint a suitably experienced Environment Control Officer ("ECO"), for the duration of the construction and rehabilitation phases of implementation.

The ECO must–

- 14.1 be appointed prior to commencement of any land clearing or construction activities;
- 14.2 ensure compliance with the EMPr and the conditions contained herein; and
- 14.3 keep record of all activities on site; problems identified; transgressions noted and a task schedule of tasks undertaken by the ECO.

Environmental audit reports

15. The holder must, for the period during which the Environmental Authorisation and EMPr remain valid -
 - 15.1 ensure that compliance with the conditions of the Environmental Authorisation and the EMPr is audited;
 - 15.2 submit at least two environmental audit reports to the relevant competent authority during the construction phase. The holder must submit one audit report within three (3) months of commencement of the construction phase and another audit report within six (6) months of completion of the construction period; and
 - 15.3 submit an environmental audit report every five (5) years after the commencement of the operational phase.
16. The environmental audit report must be prepared by an independent person and must address the objectives and contain all the information set out in Appendix 7 of the EIA Regulations, 2014 (as amended).

In addition to the above, the environmental audit report, must -

- 16.1 provide verifiable findings, in a structured and systematic manner, on–
 - (a) the level of compliance with the conditions of the Environmental Authorisation and the EMPr and whether this is sufficient or not; and
 - (b) the extent to which the avoidance, management and mitigation measures provided for in the EMPr achieve the objectives and outcomes of the EMPr and highlight whether this is sufficient or not;

- 16.2 identify and assess any new impacts and risks as a result of undertaking the activity;
 - 16.3 evaluate the effectiveness of the EMPr;
 - 16.4 identify shortcomings in the EMPr;
 - 16.5 identify the need for any changes to the avoidance, management and mitigation measures provided for in the EMPr;
 - 16.6 indicate the date on which the construction work was commenced with and completed or in the case where the development is incomplete, the progress of the development and rehabilitation;
 - 16.7 include a photographic record of the site applicable to the audit; and
 - 16.8 be informed by the ECO reports.
17. The holder must, within 7 (seven) calendar days of the submission of the environmental audit report to the competent authority, notify all potential and registered Interested and Affected Parties of the submission and make the report available to anyone on request and where the holder has such a facility, be placed on a publicly accessible website.
 18. The generators must be maintained on a regular basis to help ensure that the generators are working optimally.
 19. All diesel storage tanks must comply with the relevant South African National Standards ("SANS") codes.
 20. A Stormwater Management Plan must be submitted to the City of Cape Town for comment and a copy of the letter of comment must be submitted to this Department for consideration before the listed activities can be commenced with.

Specific conditions

21. The following mitigation measures as included in the Final BAR dated October 2020 compiled by Mr. Pieter De Lange of Delron Consulting (Pty) Ltd must be implemented:
 - 21.1. The storage units for the tanks must be constructed of weatherproof materials to help prevent weathering;
 - 21.2. The diesel storage tanks must be bunded at 110% of the maximum volume of the storage tanks.
 - 21.3. Leak detection technology must be installed to provide immediate notification of leaks.
 - 21.4. Overflow prevention valves must be installed within the tanks to prevent overfilling.
 - 21.5. The generators must be designed so as to conform to the relevant ISO standards.
 - 21.6. The fuel tanker driver must be present for the duration of product offloading and the emergency cut-off switch must be immediately activated if an incident occurs which requires the cessation of fuel delivery.
 - 21.7. Fuel leak observation wells must be installed during backfilling for the purpose of monitoring of groundwater and the identification of possible leaking tanks. Should any leaks be detected, corrective measures must be taken immediately to stop further leakages from occurring.
22. A site-specific Leak Detection and Repair Programme ("LDAR") must be compiled and submitted for comment to the City of Cape Town prior to the undertaking of the authorised activities. A copy of the LDAR Programme and the letter of comment from the City of Cape Town must be submitted to this Department prior to the commencement of construction activities.
23. Surface and ground water must not be polluted due to any actions on the site. The applicable requirements with respect to relevant legislation pertaining to water must be met.
24. An integrated waste management approach, which is based on waste minimisation and incorporates reduction, recycling, re-use and disposal, where appropriate, must be employed.

Any solid waste must be disposed of at a waste disposal facility licensed in terms of the applicable legislation.

25. Should any heritage remains be exposed during excavations or any actions on the site, these must immediately be reported to the Provincial Heritage Resources Authority of the Western Cape, Heritage Western Cape (in accordance with the applicable legislation). Heritage remains uncovered or disturbed during earthworks must not be further disturbed until the necessary approval has been obtained from Heritage Western Cape. Heritage remains include: archaeological remains (including fossil bones and fossil shells); coins; indigenous and/or colonial ceramics; any articles of value or antiquity; marine shell heaps; stone artifacts and bone remains; structures and other built features; rock art and rock engravings and graves or unmarked human burials.

A qualified archaeologist must be contracted where necessary (at the expense of the applicant and in consultation with the relevant authority) to remove any human remains in accordance with the requirements of the relevant authority.

F. GENERAL MATTERS

1. Notwithstanding this Environmental Authorisation, the holder must comply with any other statutory requirements that may be applicable when undertaking the listed activities.
2. If the holder does not commence with the listed activities within the period referred to in Condition 3, this Environmental Authorisation shall lapse for the activities, and a new application for Environmental Authorisation must be submitted to the competent authority. If the holder wishes to extend the validity period of the Environmental Authorisation, an application for amendment in this regard must be made to the competent authority prior to the expiry date of the Environmental Authorisation.
3. The holder must submit an application for amendment of the Environmental Authorisation to the competent authority where any detail with respect to the Environmental Authorisation must be amended, added, substituted, corrected, removed or updated. If a new holder is proposed, an application for amendment in terms of Part 1 of the EIA Regulations, 2014 (as amended) must be submitted.
 - 3.1. Please note that an amendment is not required if there is a change in the contact details of the holder. In this case, the competent authority must only be notified of such changes.
4. The manner and frequency for updating the EMPr is as follows:
 - 4.1. Amendments to the EMPr, other than those mentioned above, must be made in accordance with Regulations 35 to 37 of the EIA Regulations, 2014 (as amended) or any relevant legislation that may be applicable at the time.
5. Non-compliance with any condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

G. APPEALS

Appeals must comply with the provisions contained in the National Appeal Regulations, 2014 (as amended).

1. An appellant (if the holder of the decision) must, within 20 (twenty) calendar days from the date notification of the decision was sent to the holder by the competent authority -

Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and

Submit a copy of the appeal to any registered Interested and Affected Parties, any Organ of State with interest in the matter and the decision-maker *i.e.*, the competent authority that issued the decision.

2. An appellant (if NOT the holder of the decision) must, within 20 (twenty) calendar days from the date the holder of the decision sent notification of the decision to the registered Interested and Affected Parties -
 - 2.1 Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and
 - 2.2 Submit a copy of the appeal to the holder of the decision, any registered Interested and Affected Party, any Organ of State with interest in the matter and the decision-maker i.e., the competent authority that issued the decision.
3. The holder of the decision (if not the appellant), the decision-maker that issued the decision, the registered Interested and Affected Party and the Organ of State must submit their responding statements, if any, to the appeal authority and the appellant within 20 (twenty) calendar days from the date of receipt of the appeal submission.

4. The appeal and the responding statement must be submitted to the address listed below:

By post: Attention: Marius Venter
Western Cape Ministry of Local Government, Environmental Affairs and
Development Planning
Private Bag X9186
CAPE TOWN
8000

By facsimile: (021) 483 4174; or

By hand: Attention: Mr Marius Venter (Tel.: 021 483 3721)
Room 809
8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

Note: For purposes of electronic database management, you are requested to submit electronic copies (Microsoft Word format) of the appeal, responding statement and any supporting documents to the Appeal Authority to the address listed above and/ or via e-mail to DEADP.Appeals@westerncape.gov.za.

5. A prescribed appeal form as well as assistance regarding the appeal processes is obtainable from the Appeal Authority at: Tel. (021) 483 3721, E-mail DEADP.Appeals@westerncape.gov.za or URL <http://www.westerncape.gov.za/eadp>.

H. DISCLAIMER

The Western Cape Government, the Local Authority, committees or any other public authority or organisation appointed in terms of the conditions of this environmental authorisation shall not be responsible for any damages or losses suffered by the holder, developer or his/her successor in any instance where construction or operation subsequent to construction is temporarily or permanently stopped for reasons of non-compliance with the conditions as set out herein or any other subsequent document or legal action emanating from this decision.

Your interest in the future of our environment is appreciated.

Yours faithfully

MR ZAAHIR TOEFY
DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

DATE OF DECISION: 09 FEBRUARY 2021

Copied to: (1) Mr. Pieter De Lange
(2) Ms. Pat Titmuss

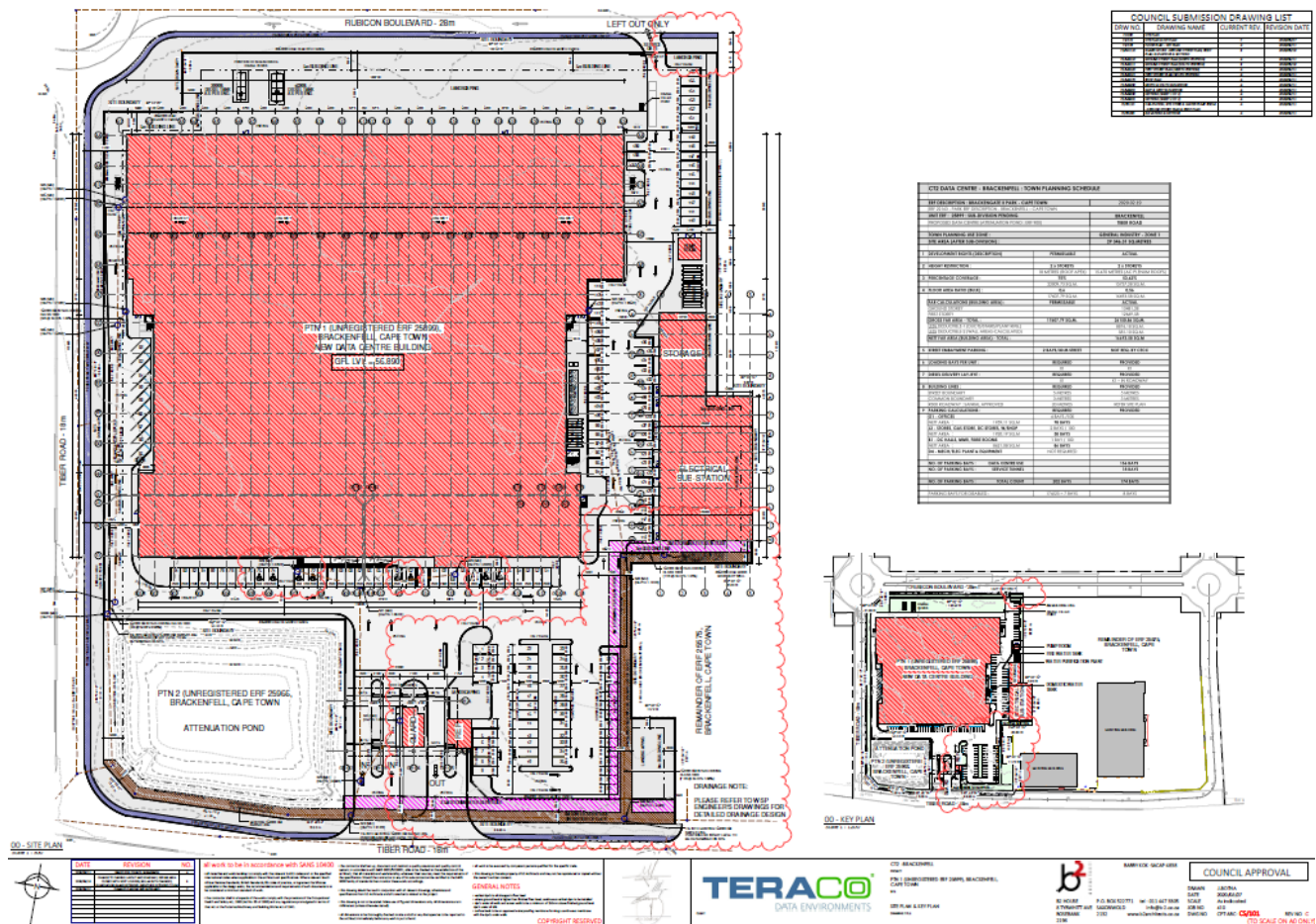
(Delron Consulting (Pty) Ltd)
(City of Cape Town)

Email: pieter@delron.co.za
Email: Pat.Titmuss@capetown.gov.za

ANNEXURE 1: LOCALITY MAP



ANNEXURE 2: SITE PLAN



ANNEXURE 3: REASONS FOR THE DECISION

In reaching its decision, the Competent Authority considered, *inter alia*, the following:

- a) The information contained in the Application Form dated 31 August 2020, the EMPr submitted together with the BAR on 13 October 2020 and the additional information received on 10 December 2020 and 18 December 2020;
- b) Relevant information contained in the Departmental information base, including the Guidelines on Public Participation, Alternatives (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including Section 2 of the NEMA; and
- d) The comments received from Interested and Affected Parties and responses to these, included in the BAR dated October 2020.

All information presented to the Competent Authority was taken into account in the consideration of the application for Environmental Authorisation. A summary of the issues that were considered to be the most significant for the decision is set out below.

1. Public Participation

The Public Participation Process ("PPP") included *inter alia*, the following:

- identification of and engagement with Interested and Affected Parties;
- fixing notices at the site where the listed activities are to be undertaken on 24 July 2020;
- the placing of a newspaper advertisement in "Die Burger" on 24 July 2020;
- distribution of written notices to Interested and Affected Parties;
- giving written notice to the owners and occupiers of land adjacent to the site where the listed activities are to be undertaken, the municipality and ward councillor, and the various organs of state having jurisdiction in respect of any aspect of the listed activities; and
- making BAR and all relevant information available to Interested and Affected Parties for public review and comment.

This Department is satisfied that the Public Participation Process that was followed met the minimum legal requirements. All the comments and responses made were included in the reports.

2. Alternatives

Site alternative (Preferred and herewith authorised)

A single site alternative for the proposed development was considered, *i.e.*, Erf 25575, Brackenfell, which is located within the existing Brackengate 2 Industrial Park. This is the preferred alternative based on the following:

- the site forms part of an existing light industrial business park where the diesel tanks and generators are required;
- the proposed development is permitted in terms of the site's existing zoning;
- the site is not cultural-historical or ecologically sensitive;
- the site is large enough to accommodate the proposed development;
- the site is located within an existing light industrial business park that has existing bulk servicing infrastructure, *e.g.*, roads and stormwater management; and
- is easily accessible from existing streets, *i.e.*, Cilmor Street and Cecil Morgan Drive.

Activity Alternative (Preferred and herewith authorised)

The preferred Activity Alternative entails the installation and operation of:

- eleven diesel generators within a generator plant room with acoustic treated walls and roof to provide immediate back-up electricity of not more than 19,8 megawatts;
- six underground diesel storage tanks with a storage capacity of 80 000 litres each; and

- twenty-one aboveground diesel storage tanks with a storage capacity of 800 litres.

This Activity Alternative is preferred as the proposed tanks are of sufficient capacity to store the amount of diesel required for the generators to provide adequate backup electricity. Furthermore, the use of diesel-powered generators enables a quick response to power outages.

Other activity alternatives (Rejected)

Other alternatives for providing backup electricity were considered, including batteries and solid fuel (e.g. coal, biomass). These options were however rejected, as the use of batteries during power outages is impractical while solid fuel does not allow for a quick response to power failures and requires additional components such as boilers and turbines.

The usage of solar and wind energy sources is also not feasible from an economic, environmental or technical perspective as these require large scale installations and associated components. Backup electricity to be generated from renewable sources were therefore rejected.

Fuel Storage Design Alternative (Preferred)

This alternative incorporates the following industry standards, which are applicable to the safe storage of fuel:

- storage tanks will be constructed using weatherproof materials to prevent weathering;
- bund walls that can contain 110% of the volume of the storage tanks will be provided in order to contain any spillages from the fuel storage tanks;
- leak detection technology will be installed to notify staff of leaks immediately;
- overflow prevention valves will be installed within the tanks to prevent overfilling; and
- fuel consumption will be optimised during back-up operations.

Design Alternatives: Diesel Storage Configuration

The preferred option to offload diesel was considered. This entails the use of two road-side off-loading points referred to as duty and standby. The purpose of having two road-side off-loading points is that if one of the off-loading points is damaged, the other off-loading point will be available.

Each off-loading point will fill a receiving tank, one labelled as duty and the other as standby. The diesel in the receiving tanks can be sampled to ensure there is no contamination. If the sampling is satisfactory, the fuel can be transferred to the following two sets of storage tanks, also referred to as duty and standby.

The three storage tanks in each storage set feed into a corresponding manifold, with one manifold labelled as duty and the other manifold labelled as standby. Both manifolds will feed a day tank allocated to every generator.

Design Alternatives: Bunding of Tanks

The preferred option entails the installation of tanks in a concrete bund underground. This option is preferred as the bund reduces the risk of fuel from the storage tanks infiltrating the ground and contaminating groundwater.

Design Alternatives: Tank Type and Location

The design of the fuel storage tanks has taken into account the industry standards for safe storage of fuel. These include the following provisions which will be implemented:

- the storage units must be constructed using weatherproof materials to prevent weathering;
- the diesel storage tanks must be banded at 110% of the volume of the storage tanks;
- leak detection technology must be installed to provide immediate notification of leaks;
- overflow prevention valves must be installed within the tanks to prevent overfilling;
- groundwater monitoring boreholes must be installed to detect any contamination;
- sumps for dewatering must be installed to ensure that the water table is temporarily lowered to allow for installation of the tanks and backfill around the tanks; and
- tanks must comply with the relevant SANS codes.

Design Alternatives: Generators

The generators will be designed to conform to the relevant ISO standards which define and specify the terms design and performance criteria.

Operational alternative: Emergency Fuel Delivery Cut-Off During Product Offloading

This alternative entails the continuous presence of the fuel tanker driver during fuel offloading. This is preferred, as this option allows for the immediate activation of an emergency cut-off switch if an incident occurs which requires the cessation of fuel delivery.

Operational alternative: Regular Stock Monitoring

This alternative entails the use of a Continuous Electronic Monitoring ("CEM") system as opposed to manual monitoring. The CEM system is preferred, as this allows for the rapid detection of possible product losses and thus more rapid remedial action. This in turn reduces the health, safety and environmental risks (e.g. subsoil and groundwater contamination and vapour emissions) associated with fuel losses.

Operational alternative: Monitoring Wells

This alternative entails the installation of fuel leak observation wells during backfilling for the purpose of monitoring of groundwater and the identification of possible leaking tanks. This alternative is preferred, as the monitoring wells will minimise the environmental risk and/or impact of accidental leaks going undetected.

"No-Go" Alternative (Rejected)

The "no-go" alternative entails maintaining the "status quo", i.e. no installation of the diesel storage tanks and back-up energy generators.

This alternative was rejected, as this means that insufficient backup energy capacity will continue on the site and thereby compromise the ability of the Teraco Data Centre CT2 to continue providing service when power outages occur.

3. Impact Assessment and Mitigation measures

3.1 Activity need and desirability

The data centre provides a range of services such as physical security, fire protection, cooling, bandwidth, cable management and power for information systems and networking equipment. The diesel storage tanks and backup generators are required to help ensure that a continuous power supply to the data centre is maintained in the event of power outages so that the facility can continue to render services to customers.

Regional/ planning context

The site is zoned General Industry I and the proposed development is deemed permissible in terms of the property's existing land use rights.

3.2 Botanical

The proposed development will take place within an existing industrial business park, which is transformed and devoid of natural vegetation.

3.3 Hydrology

There are no watercourse(s) and/or wetlands present on the site. As such, no significant impacts on biodiversity are expected, in this regard.

According to the Groundwater Impact Assessment dated 7 August 2020, the underlying aquifer at the site is classified as fractured and the risk of groundwater contamination is "very high" due to the high permeability of the sands and the shallow groundwater levels. However, the risk of pollution caused by uncontrolled runoff from the construction site and/or accidental leaking or spillage of hazardous material can be reduced through the implementation of certain measures. These include the installation of *inter alia*: leak detection technology, overflow prevention valves, the CEM and groundwater monitoring boreholes and the EMPr (which includes a Groundwater Water Monitoring Plan). Furthermore, the implementation of the Stormwater Management Plan

Emergency Response Plan (to be considered by the City of Cape Town) will help to further reduce the risk of any accidental spillage into the receiving area/environment.

3.4 Health and Safety

According to the Major Hazard Installation Risk Assessment dated 3 August 2020, the risk from fires or explosions are limited to the immediate area, but at the same time, the risks are high for those present on the site, e.g. workers. Since the risks would not extend beyond the site the risks to the public would be considered low and the proposed development is not considered as a 'Major Hazard Installation'. However, in order to reduce the on-site risk associated with *inter alia*, accidental fires, explosions and spillages, an Emergency Response Plan has been compiled and included in the EMPr. The implementation of the Emergency Response Plan and the EMPr will minimise the risk and impacts of emergency situations such as accidental fires.

3.5 Noise and Emissions

Although noise impacts on the surrounding residential areas will result, the generators and diesel storage tanks will only be used in the event of a power outage, as opposed to being in continuous operation. During such events, the generators will produce noise and exhaust emissions. Since, it is unlikely that the proposed generators will operate for extended periods of time or on a regular basis, noise and exhaust emissions are unlikely to significantly impact on the health of employees at the facility and/or on the people in the Industrial Park. According to the estimations of the Noise Impact Assessment dated 9 October 2020, the proposed development predicted will not exceed the maximum allowable limit of 77dBA during the daytime and 67 dBA at the night-time.

In order to reduce noise levels, the generators will have both inlet and outlet noise attenuators to produce not more than 65 A-weighted decibels ("dBA") at 7m from their air outlet side and 65 dBA at 7m from their air inlet side. This requirement also forms part of the provisions of the EMPr.

3.6 Visual / sense of place

During the construction period, there will be limited construction activities, which may result in visual impacts. These will however be short-term and will be adequately managed by the implementation of the EMPr.

The proposed development will occur within the Brackengate II Light Industrial Business Park where the surroundings comprise large mixed-use industrial and commercial properties. As such, the proposed development will not be out of character with its existing surrounds or immediate receiving environment. The installation of the tanks underground also means that it will not be visible, except for the generators and associated infrastructure.

3.7 Heritage / archaeological / built environment

The impact of the proposed development on heritage is low, and the likelihood of material of heritage significance being found during earthworks is also low as the proposed development works will take place in an existing transformed and Light Industrial Business Park. Heritage Western Cape indicated in its comments dated 17 July 2020 that no further action is required in terms Section 38 of the National Heritage Resources Act, 1999 (Act No. 25 of 1999).

3.8 Socio-economic

The proposed development will allow the data centre to continue to provide services to clients even during power outages. This has economic benefits for both the facility as well as their clients using the specific services.

4. National Environmental Management Act Principles

The National Environmental Management Principles (set out in section 2 of the NEMA, which apply to the actions of all organs of state, serve as guidelines by reference to which any organ of state must exercise any function when taking any decision, and which must guide the interpretation, administration and implementation of any other law concerned with the protection or management of the environment), *inter alia*, provides for:

- the effects of decisions on all aspects of the environment to be taken into account;

- the consideration, assessment and evaluation of the social, economic and environmental impacts of activities (disadvantages and benefits), and for decisions to be appropriate in the light of such consideration and assessment;
- the co-ordination and harmonisation of policies, legislation and actions relating to the environment;
- the resolving of actual or potential conflicts of interest between organs of state through conflict resolution procedures; and
- the selection of the best practicable environmental option.

Negative impact(s)

- Health and Safety risks associated with accidental fires and spillages; and
- Noise and emissions

Positive impact(s)

The development will ensure that the data centre will continue to render various services to its clients during power outages and thereby avoiding economic losses for the facility and its clients.

5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMP, the Competent Authority is satisfied that the proposed listed activities will not conflict with the general objectives of integrated environmental management stipulated in Chapter 5 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and that any potentially detrimental environmental impacts resulting from the listed activities can be mitigated to acceptable levels.

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