



Development Management (Region 1) Rainer.Chambeau@westerncape.gov.za | Tel: 021 483 2729

EIA REFERENCE NUMBER: 16/3/3/1/A5/88/2029/21 NEAS REFERENCE NUMBER: WCP/EIA/0000927/2021 Mr. R. Chambeau **ENQUIRIES:** DATE OF ISSUE: 06 December 2021

The Director Clay Industry CC P.O. Box 2292 **DURBANVILLE** 7551

For Attention: Mr. N. van Wyk Tel: (022) 975 4065

Email: nickv@clayi.co.za

Email: more.theron@capetown.gov.za

Email: lan.Gildenhuys@capetown.gov.za

Email: peter.Harmse@westerncape.gov.za

Dear Sir

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): THE PROPOSED INCREASE OF BRICK PRODUCTION AND THE INCLUSION OF ADDITIONAL PROCESS WASTE PRODUCTS IN THE MANUFACTURING OF CLAY BRICKS. AT THE EXISTING CLAY INDUSTRY BRICK MANUFACTURING FACILITY LOCATED ON FARM COROBRICK NO. 1385, FISANTEKRAAL, WESTERN CAPE.

- 1. With reference to the above application, this Department hereby notifies you of its decision to grant Environmental Authorisation, together with the reasons for the decision.
- 2. In terms of Regulation 4 of the Environmental Impact Assessment Regulations, 2014 (as amended), you are instructed to ensure, within 14 days of the date of the decision on the application, that all registered interested and affected parties ("I&APs") are provided with access to the decision and reasons for the decision, and that all registered I&APs are notified of their right to appeal.
- 3. Your attention is drawn to Chapter 2 of the National Appeal Regulations, 2014 (as amended), which prescribes the appeal procedure to be followed. This procedure is summarised hereunder.

Yours faithfully

MR. ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

Copies to: (1) Mr. L. Eichstadt (Resource Management Services (RMS)) Email: larry@rmsenviro.co.za

(2) Mr. M. Theron (City of Cape Town: ERM)

(3) Mr. I. Gildenhuys (City of Cape Town: Air Quality) (4) Mr. P. Harmse (DEA&DP: Air Quality)

(5) Mr. W. Galvaan (DEA&DP: Waste Management)

Email: waleed.galvaan@westerncape.gov.za (6) Ms. A. McClelland (DEA&DP: Pollution and Chemicals Management) Email: arabel.mcclelland@westerncape.gov.za Development Management (Region 1)
Rainer.Chambeau@westerncape.gov.za | Tel: 021 483 2729

ENVIRONMENTAL AUTHORISATION

APPLICATION FOR ENVIRONMENTAL AUTHORISATION IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998) AND ENVIRONMENTAL IMPACT ASSESSMENT REGULATIONS, 2014 (AS AMENDED): THE PROPOSED INCREASE OF BRICK PRODUCTION AND THE INCLUSION OF ADDITIONAL PROCESS WASTE PRODUCTS IN THE MANUFACTURING OF CLAY BRICKS, AT THE EXISTING CLAY INDUSTRY BRICK MANUFACTURING FACILITY LOCATED ON FARM COROBRICK NO. 1385, FISANTEKRAAL, WESTERN CAPE.

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 the Environmental Impact Assessment ("EIA") Regulations, 2014 (as amended), the Competent Authority herewith **grants Environmental Authorisation** to the applicant to undertake the listed activity specified in section B below with respect to Alternative 1 (i.e. the Preferred Alternative), described in the Basic Assessment Report ("BAR") dated August 2021.

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

The Director Clay Industry CC P.O. Box 2292 **DURBANVILLE** 7551

Tel: (022) 975 4065

Email: nickv@clayi.co.za

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

B. ACTIVITY AUTHORISED

Listed Activity Activity/Project Description Listing Notice 1 of the EIA Regulations, 2014, (as amended): Activity Number: 34 Activity Description: The proposed expansion of the production at "The expansion of existing facilities the existing Clay Industry brick manufacturing facility, will result in the need to obtain a infrastructure for any process or activity where such expansion will result in the need for a permit variation to an existing Atmospheric Emissions or licence or an amended permit or licence in Licence obtained in terms of the National terms of national or provincial legislation Environmental Management: Air Quality Act, governing the release of emissions, effluent or 2004 (Act No. 39 of 2004) issued by the relevant pollution, excluding licensing authority. ((i))where the facility, infrastructure, process, or activity is included in the list of waste management activities published in terms of section 19 of the National Environmental Management: Waste Act, 2008 (Act No.59 of 2008) in which case the National Environmental Management: Waste Act, 2008 applies; (ii) the expansion of existing facilities or infrastructure for the treatment of effluent, wastewater, polluted water or sewerage where the capacity will be increased by less than 15 000 cubic metres per day; or the expansion is directly related to (iii) aquaculture facilities or infrastructure where the wastewater discharge capacity will be increased by 50 cubic metres or less per day.

The abovementioned list is hereinafter referred to as "the listed activity".

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

The authorised development entails the expansion of the production of clay bricks from approximately 54 million bricks per annum to approximately 72 million bricks per annum at the existing brick manufacturing facility on Farm Corobrick, No. 1385, Fisantekraal. The expansion to the existing facility will include an increase in the amount of paper pulp and coal derived ash/boiler ash currently being used as feedstock in the manufacturing of clay bricks. In addition, new waste products (i.e. green moulding sand and effluent water) will be used as additional feedstock in the manufacturing of clay bricks. The maximum combined amount of raw materials to be used in the process will be approximately 99 tons/day.

All raw materials will be stored within designated impermeable bunded areas within the developed footprint. The proposed expansion will occur within the existing developed footprint of the existing brick manufacturing facility, which covers an extent of approximately 3 Ha. No additional municipal services will be required to service the proposed expansion.

Existing access off the R302, Klipheuwel Road will continue to be used to access the facility.

C. SITE DESCRIPTION AND LOCATION

The authorised listed activity will be undertaken at the existing Clay Industry brick manufacturing facility on Farm Corobrick, No. 1385, Fisantekraal.

The 21-digit Surveyor General code for the proposed site is:

Farm Corobrick, No. 1385, Fisantekraal	C0160000000138500000
T dilli Golobilok, No. 1000, Hodilloki dal	00100000000000000

Site co-ordinates for the proposed site is:

Middle point	33° 47'25.14" South	18° 41'27.55" East
Triidale peirii	100 17 20:11 000111	10 11 27:00 East

Refer to Annexure 1: Locality Plan and Annexure 2: Site Plan.

The said section of land is hereinafter referred to as "the site".

D. DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER

Resource Management Services (RMS) c/o Mr. Larry Eichstadt P.O. Box 4296 **DURBANVILLE** 7551

Cell.: (021) 975 7396

Email: larry@rmsenviro.co.za

E. CONDITIONS OF AUTHORISATION

Scope of authorisation

- 1. The holder is authorised to undertake the listed activity specified in Section B above in accordance with and restricted to the Alternative 1 (i.e. the Preferred Alternative) described in the BAR dated August 2021 on the site described in Section C above.
- 2. The holder must commence with the listed activity on the site within a period of **five (5) years** from the date of issue of this Environmental Authorisation.
- 3. The development must be concluded within **ten (10)** years from the date of commencement of the listed activity.
- 4. The holder shall be responsible for ensuring 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.
- 5. Any changes to, or deviations from the scope of the alternatives described in section B 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 information in order 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.

Written notice to the Competent Authority

- 6. A minimum of 7 (seven) calendar days' notice, in writing must be given to the Competent Authority before commencement of expansion activities.
 - 6.1. The notice must make clear reference to the site details and EIA Reference number given above.
 - 6.2. The notice must also include proof of compliance with the following conditions described herein:

Conditions: 6, 7 and 11.

Notification and administration of appeal

- 7. The holder must in writing, within 14 (fourteen) calendar days of the date of this decision-
 - 7.1. Notify all registered Interested and Affected Parties ("I&APs") of
 - 7.1.1. the outcome of the application;
 - 7.1.2. the reasons for the decision as included in Annexure 3:
 - 7.1.3. the date of the decision; and
 - 7.1.4. the date when the decision was issued.
 - 7.2. Draw the attention of all registered I&APs to the fact that an appeal may be lodged against the decision in terms of the National Appeal Regulations, 2014 (as amended) detailed in Section G below;
 - 7.3. Draw the attention of all registered I&APs to the manner in which they may access the decision:
 - 7.4. Provide the registered I&APs with:
 - 7.4.1. name of the holder (entity) of this Environmental Authorisation,
 - 7.4.2. name of the responsible person for this Environmental Authorisation,
 - 7.4.3. postal address of the holder,
 - 7.4.4. telephonic and fax details of the holder,
 - 7.4.5. e-mail address, if any, of the holder,
 - 7.4.6. the contact details (postal and/or physical address, contact number, facsimile and e-mail address) of the decision-maker and all registered I&APs in the event that an appeal is lodged in terms of the National Appeal Regulations, 2014 (as amended).
- 8. The listed activity, including site preparation, must not be commenced with within 20 (twenty) calendar days from the date the holder notifies the registered I&APs of this decision. In the event that an appeal is lodged with the Appeal Authority, the effect of this Environmental Authorisation is suspended until the appeal is decided, i.e., the listed activity, including site preparation, must not be commenced with until the appeal is decided.

Management of activity

- 9. The Environmental Management Programme ("EMPr") (dated August 2021) and submitted as part of the application for Environmental Authorisation is hereby approved and must be implemented.
- 10. The EMPr must be included in all contract documentation for all phases of implementation.

Monitoring

- 11. The holder must appoint a suitably experienced Environmental Control Officer ("ECO") before commencing with development activity to ensure compliance with the provisions of the EMPr and the conditions contained in this Environmental Authorisation.
- 12. A copy of the Environmental Authorisation, EMPr, Environmental Audit Reports and compliance monitoring reports must be kept on the site of the authorised listed activity and must be made available to any authorised person on request.
- 13. Access to the site referred to in Section C above must be granted and the environmental reports mentioned above must be produced, to any authorised official representing the Competent Authority who requests to see these for the purpose of assessing and/or monitoring compliance with the conditions contained herein.

Auditing

- 14. In terms of Regulation 34 of the EIA Regulations, 2014 (as amended), the holder must conduct environmental audits to determine compliance with the conditions of the Environmental Authorisation and the EMPr and submit Environmental Audit Reports to the Competent Authority. The Environmental Audit Reports must be prepared by an independent person and must contain all the information required in Appendix 7 of the EIA Regulations, 2014 (as amended).
 - 14.1. The holder must undertake an environmental audit within three (3) months of the commencement of the listed activity and submit an Environmental Audit Report to the Competent Authority within one (1) month of completion of the environmental audit.
 - 14.2. A second Environmental Audit Report must be submitted to the Competent Authority within one (1) year after the commencement of the operational phase.
 - 14.3. An Environmental Audit Report must be submitted to the Competent Authority every 5 (five) years after the commencement of the operational phase.
 - 14.4. The holder must, within 7 (seven) days of the submission of the Environmental Audit Report to the Competent Authority, notify all potential and registered I&APs of the submission and make the report available to anyone on request.

Specific conditions

- 15. An integrated waste management approach, which is based on waste minimization and incorporates reduction, recycling, re-use and disposal, where appropriate, must be employed. Any solid waste must be disposed of at a landfill licensed in terms of the applicable legislation.
- 16. In accordance with the Basic Air Quality Impact Assessment (compiled by DDA Environmental Engineers and dated June 2021), the current water sprayers and water bowsers that are utilized for the mitigation of fugitive dust emissions from the storge yard must be maintained during the operational phase.
- 17. Employment opportunities must be afforded to the local community (as far as possible) during all phases of the proposed development.

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 activity.
- 2. Non-compliance with a condition of this Environmental Authorisation or EMPr may render the holder liable to criminal prosecution.

- 3. If the holder does not commence with the listed activity within the period specified in Condition 2, this Environmental Authorisation shall lapse for that activity, 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.
- 4. An application for amendment of the Environmental Authorisation must be submitted 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.

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.

5. The manner and frequency for updating the EMPr is as follows:

Amendments to the EMPr, 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.

G. APPEALS

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

- 1. An appellant must
 - 1.1. Submit an appeal in accordance with Regulation 4 of the National Appeal Regulations, 2014 (as amended) to the Appeal Administrator; and
 - 1.2. Submit a copy of the appeal to any registered I&APs, 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 I&APs-
 - 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 I&AP, 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 I&AP 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 form/s must be submitted by means of one of the following methods:

By post: Attention: Mr. M. Venter

Western Cape Ministry of Local Government, Environmental Affairs and

Development Planning Private Bag X9186

CAPE TOWN

0008

By facsimile: (021) 483 4174; or

By hand: Attention: Mr. M. Venter (Tel: 021 483 3721)

Room 809

8th Floor Utilitas Building, 1 Dorp Street, Cape Town, 8001

5. The prescribed appeal form, as well as assistance regarding the appeal processes is obtainable from the office of 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 holder, 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 greatly appreciated.

Yours faithfully

MR. ZAAHIR TOEFY

DIRECTOR: DEVELOPMENT MANAGEMENT (REGION 1)

DATE OF DECISION: 06 DECEMBER 2021

Copies to: (1) Mr. L. Eichstadt (Resource Management Services (RMS)) Email: |ar

(2) Mr. M. Theron (City of Cape Town: ERM)

(3) Mr. I. Gildenhuys (City of Cape Town: Air Quality)

(4) Mr. P. Harmse (DEA&DP: Air Quality)

(5) Mr. W. Galvaan (DEA&DP: Waste Management)

(6) Ms. A. McClelland (DEA&DP: Pollution and Chemicals Management)

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Email: more.theron@capetown.gov.za

Email: <u>lan.Gildenhuys@capetown.gov.za</u>

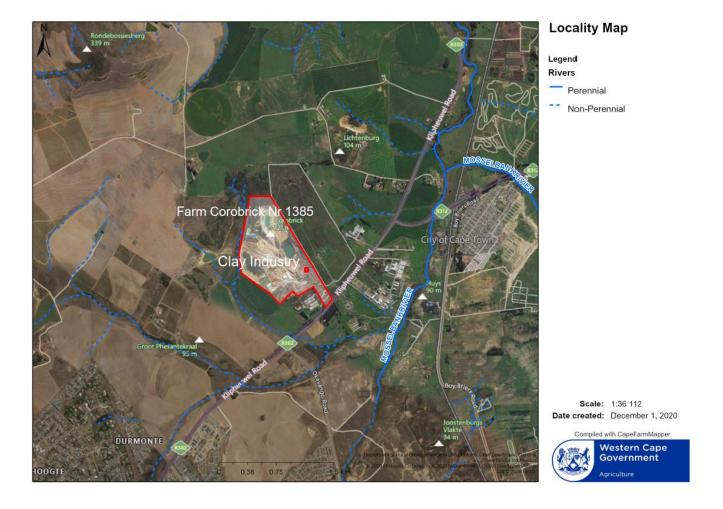
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Email: arabel.mcclelland@westerncape.gov.za

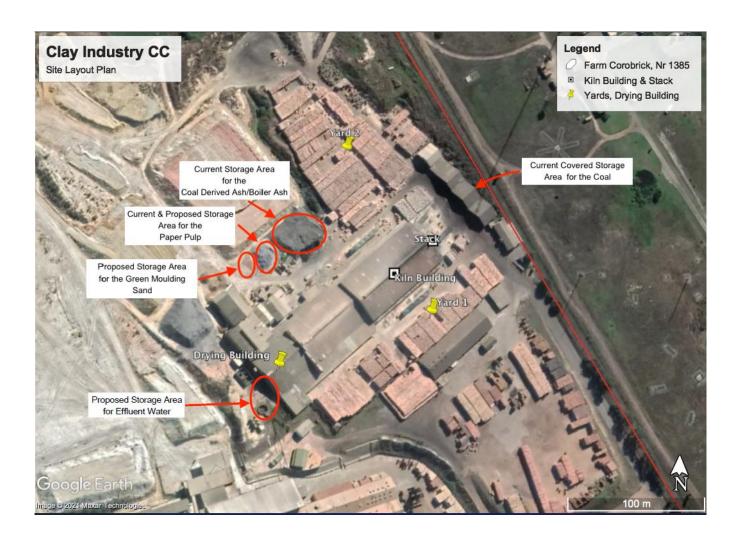
ANNEXURE 1: LOCALITY MAP

The existing Clay Industry brick manufacturing facility on Farm Corobrick, No. 1385, Fisantekraal.



ANNEXURE 2: SITE PLAN

Site plan for the proposed development.



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 June 2021 and received by the competent authority on 17 June 2021, the BAR dated August 2021 and received by the competent authority on 18 August 2021 and the EMPr (dated August 2021) submitted together with the BAR;
- b) Relevant information contained in the Departmental information base, including, the Guidelines on Public Participation, Alternatives and Exemptions (dated March 2013);
- c) The objectives and requirements of relevant legislation, policies and guidelines, including section 2 of the NEMA;
- d) The comments received from I&APs and responses to these, included in the BAR dated August 2021;
- e) The balancing of negative and positive impacts and proposed mitigation measures; and
- f) No site visits were conducted. The competent authority had sufficient information before it to make an informed decision without conducting a site visit.

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 which, according to the competent authority, were the most significant reasons for the decision, is set out below.

1. Public Participation

The public participation process ("PPP") included:

- Identification of and engagement with I&APs;
- Fixing a notice board at the site where the listed activity is to be undertaken on 17 June 2021;
- Giving written notice to the owners and occupiers of land adjacent to the site where the listed activity is to be undertaken, the municipality and ward councilor, and the various organs of state having jurisdiction in respect of any aspect of the listed activity on 17 June 2021;
- The placing of a newspaper advertisements in the "Tygerburger" on 16 June 2021 and in the "Die Burger" on 15 June 2021;
- Placing the draft BAR on the RMS website for review during the 30-day commenting period. http://www.rmsenviro.co.za/;
- Placing the draft BAR at the Durbanville library for review during the 30-day commenting period from 17 June 2021 until 19 July 2021.
- Making the draft BAR available to I&APs for comment from 17 June 2021 to 19 July 2021.

All the concerns raised by I&APs were responded to and adequately addressed during the public participation process. This Department is satisfied that the PPP that was followed met the minimum legal requirements and all the comments raised and responses thereto were included in the comments and responses report. Specific management and mitigation measures have been considered in this Environmental Authorisation and in the EMPr to adequately address the concerns raised.

2. Alternatives

Given that the proposed expansion is for an existing development, no reasonable or feasible site alternatives or layout alternatives were identified. Two alternatives with regards to the use of raw materials and the "No-Go" alternative were identified and assessed as follows:

Alternative 1 (the Preferred Alternative – herewith authorised)

Alternative 1 entails the expansion of the production of clay bricks from approximately 54 million bricks per annum to approximately 72 million bricks per annum at the existing brick manufacturing facility on Farm Corobrick, No. 1385, Fisantekraal. The expansion to the existing facility will include an increase in the amount of paper pulp and coal derived ash/boiler ash currently being used as feedstock in the manufacturing of clay bricks. In addition, new waste products (i.e. green moulding sand and effluent water) will be used as additional feedstock in the manufacturing of clay bricks. The maximum combined amount of raw materials to be used in the process will be approximately 99 tons/day.

All raw materials will be stored within designated impermeable bunded areas within the developed footprint. The proposed expansion will occur within the existing developed footprint of the existing brick manufacturing facility, which covers an extent of approximately 3 Ha. No additional municipal services will be required to service the proposed expansion.

Existing access off the R302, Klipheuwel Road will continue to be used to access the facility.

Alternative 1 was deemed as the preferred alternative since it will result in the re-use of effluent water in the brick manufacturing process, which will reduce the volume of potable water required in the process. In addition, waste products (i.e. green moulding sand and effluent water) will be used in the process, which will reduce the amount of waste disposed at landfill sites. Alternative 1 was further supported from an air quality perspective.

Alternative 2

Alternative 2 entailed the expansion to the existing facility. However, Alternative 2 excluded the use of effluent water in the process to manufacture additional bricks.

Although Alternative 2 is similar to Alternative 1, Alternative 2 was not deemed the preferred alternative due to the continued use of potable water during the brick manufacturing process at the existing brick manufacturing facility.

"No-Go" Alternative

The "No-Go" alternative would result in maintaining the "status quo". However, since Alternative 1 (i.e. the preferred alternative) will not result in unacceptable environmental impacts, the "No-Go" alternative was not warranted.

3. Impact Assessment and Mitigation measures

3.1. Activity Need and Desirability

The proposed site is zoned Industrial and the proposed expansion is in line with the existing land use rights of the proposed site. The proposed development is in line with the relevant planning policies applicable to the area. Given that process waste products (namely green moulding sand and effluent water) will be used as additional feedstock in the manufacturing of clay bricks, the beneficial reuse of these waste products will result in less waste going to landfills for disposal. Some employment opportunities will also be created as a result of the proposed expansion.

3.2. Air quality Impacts

A Basic Air Quality Impact Assessment (compiled by DDA Environmental Engineers and dated June 2021) was undertaken to determine the potential air quality impacts due to the proposed expansion.

The specialist indicated that the point source emissions, i.e. the Transverse Arch Kiln emissions are expected to increase due to the additional coal utilised for the increased production. The coal quantity is expected to increase by approximately 50%. It was assumed that the kiln stack emissions will proportionally increase, as a result of the additional coal used over the same time period as before.

A Level 1 air dispersion modelling was carried out to assess the potential air quality impacts due to the point source emissions. The Level 1 approach was considered appropriate since there was only one stack at the existing facility and would produce the worst-case ground level concentrations for the air quality impact assessment.

Based on the dispersion modelling results, the ground-level concentrations due to the kiln emissions of all the air pollutants examined were low and within the ambient air quality standards and relevant guidelines in close proximity to the plant. At greater distances, i.e. larger than 1,500m from the plant and at the closest residential areas of Uitzicht and Fisantekraal, the resulting concentrations were found to be very low to negligible, and the expected overall air quality impact due to the proposed production increase is expected to be low.

The recommendations of the specialist have been included as a condition set in this Environmental Authorisation and in the EMPr. A Review and Variation application in terms of the National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) will be submitted to the relevant licensing authority. In addition, no objections were received from the City of Cape Town (comment dated 19 July 2021) from an air quality perspective,

3.3. Waste minimisation

The proposed expansion will result in the use of waste materials (i.e. namely paper pulp, green moulding sand, coal derived ash/boiler ash, and effluent water) for the manufacturing of bricks. The reuse of waste materials will reduce the amount of waste disposed to landfills. In addition, the use of effluent water will reduce the amount of potable water required for the manufacturing of the bricks.

This Department's Directorate: Waste Management indicated (in their correspondence dated 09 July 2021) that with the proposed expansion of the existing facility operations and the coprocessing of general waste (paper pulp, boiler ash, foundry or green moulding sand and industrial wastewater or effluent) in their clay brick making process, the factory will save on raw materials and recover waste that could otherwise pose a risk to the environment or take up valuable waste disposal airspace. This is in line with the relevant waste policies. A Waste Management Licence in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) was issued by this Department's Directorate: Waste Management on 27 September 2021 for the proposed use of raw materials.

3.4. Groundwater and soil contamination

According to Cape Farm Mapper, the depth to groundwater is approximately 10,38m below ground level. The BAR therefore indicates that the green moulding sand will be stored within a 20m X 20m impermeable clay bunded area. The additional paper pulp will be stored within the current concrete, semi-enclosed,10m X 15m bunded area and the additional coal derived ash/boiler ash will be stored within the current 20m X 20m impermeable clay bunded area. Adequate storage space is available for the proposed additional volume of paper pulp and ash.

The effluent water will be stored in a circular tank housed within an adequate bund capable of holding 110% of the total volume of the tank (40 000l) and transferred into Jojo Tanks before use. This will ensure that groundwater is not impacted upon. Mitigation measures in the storage design has therefore been included in the existing development to avoid the potential groundwater impacts and soil contamination during the operational phase.

3.5. Fire and safety impacts

Potential fire, health and safety impacts associated with the operational phase of the proposed expansion have been identified and assessed. Mitigation measures have been included in the EMPr.

3.6. Noise, dust and odour impacts

Potential noise, dust and odour impacts associated with the operational phase of the proposed expansion have been identified and assessed. Mitigation measures have been included in the EMPr.

The development will result in both negative and positive impacts.

Negative Impacts include:

- Potential air quality impacts;
- Potential soil contamination during the operational phase; and;
- Potential noise impacts.

Positive impacts include:

- reduced potable water use in the manufacturing of bricks;
- reduce waste disposal to landfill;
- Contribution to the local economy; and
- Some employment opportunities.

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.

5. Conclusion

In view of the above, the NEMA principles, compliance with the conditions stipulated in this Environmental Authorisation, and compliance with the EMPr, the Competent Authority is satisfied that the proposed listed activity 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 activity can be mitigated to acceptable levels.

You are reminded of your general duty of care towards the environment in terms of Section 28(1) of
the NEMA which states: "Every person who causes, has caused or may cause significant pollution or
degradation of the environment must take reasonable measures to prevent such pollution or
degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is
authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution
or degradation of the environment."

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