

SCOPING REPORT – REF. NO. DM/0020/2020: KZN/EIA/0001468/2020

Submitted in terms of the Environmental Impact Assessment Regulations, 2014, as amended promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) to:

DEPARTMENT OF ECONOMIC DEVELOPMENT, TOURISM AND ENVIRONMENTAL AFFAIRS
(EDTEA)

PROJECT TITLE

Proposed Cement Grinding Processing Plant: Grinding Mill on Remainder of Portion 2108 of Umlazi Native Location No. 4676, Umbogintwini, eThekweni Municipality, KwaZulu - Natal.

(1) (A) (i) DETAILS OF THE ENVIRONMENTAL ASSESSMENT PRACTITIONER (EAP) WHO PREPARED THE REPORT:

Mondli Consulting Services has been appointed by Platinum Cement Industries (Pty) Ltd to undertake and manage the Environmental Impact Assessment process for the proposed Cement Grinding Processing Plant: Grinding Mill on Remainder of Portion 2108 of Umlazi Native Location No. 4676, Umbogintwini. This scoping report forms part of this process.

In addition, WSP Environmental (Pty) Ltd has been appointed by the same applicant to specifically deal with air quality issues for the overall project.

Details of the EAP:

Business name of EAP:	Mondli Consulting Services		
Physical address:	6 Joseph Avenue, New Era House, Suite 9, Durban North		
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(ii) The expertise of the EAP / Specialists (including curriculum vitae are attached as Appendix F.

Name of representative of the EAP	Education qualifications	Professional affiliations	Experience at environmental assessments (yrs)
BM Mthembu	Diploma in Nature Conservation	EAPASA registered EAP: No. 2018/168 in	Has been involved in environmental and

	Master's degree (Environmental Studies Dissertation) Bachelor of Laws (LLB)	accordance with the prescribed criteria of Regulation 15(1) of section 24 H Registration Authority Regulations Society of South African Geographers (Membership No. 28/09), confirmed to comply with the requirements set by South African Council for Natural Scientific Professions.	conservation field for over 20 yrs. Conducted EIAs for over 17 years including Strategic Env. Assessment. Has been involved in the review and commenting on development projects impacting on the environment.
SI Thwala	National Diploma in Analytical Chemistry & Bachelor of Science degree majoring in Geography and Computer Science.	In the process of registering with EAPASA.	Three years experience in environmental management, in particular environmental impact assessments and environmental monitoring. Has years of experience in environmental training.
Emission License application will be handled by WSP Environmental (Pty) Ltd – Senior Consultant (Air Quality & Acoustics) Environment & Energy, Kirsten Collett	Master of Science, Atmospheric Sciences, University of Witwatersrand, Johannesburg, South Africa.	SACNASP: Registered Professional Natural Scientist (Pr.Nat.Sci.) with the South African Council for Natural Scientific Professions.	See attached CV (Appendix F).

(B) THE LOCATION OF THE ACTIVITY

- (i) The project is located within the eThekweni Municipality. *The 21-digit Surveyor General code of each cadastral land parcel*

N	O	E	T	0	0	0	0	0	0	0	0	4	6	7	6	0	2	1	0	8

- (ii) *The physical address and farm name*

The project site is located within Umbogintwini Industrial Complex at Umbogintwini on Remainder of Portion 2108 of Umlazi Native Location No. 4676. The site is located on 1 Lodestar avenue, surrounded by several heavy industries. This is about 30km south west of Durban Central Business District, 5 km north of the town of Amanzimtoti and 20km from Durban Harbour, KwaZulu – Natal.

Property Number	Property Description	Size	Development type
1	Remainder of Portion 2108 of Umlazi Native Location No. 4676 at Umbogintwini Industrial Complex.	The site is 28.69 hectares (HAs) in extent. 8.14 HA will be the cement grinding processing plant, 2.38 HA will be the private open space that is earmarked for possible future expansion for finished goods dispatch area, 0.10 HA existing tar road connecting the processing plant area to the private open space, 8.85 HA for container storage, transport yard and other warehousing for general items, 1.62 HA D'MOSS and another 7.60 HA as D'MOSS.	General Industry (Cement Grinding Plant).

- (iii) Where the required information in terms of (i) and (ii) is not available, the coordinates of the boundary of the property or properties;

Alternatives	Latitude (S)	Longitude (E)
Preferred site	30° 01' 17.25"	30° 53' 51.38"
Alternative site 1	None	None

(C) A PLAN WHICH LOCATES THE PROPOSED ACTIVITY OR ACTIVITIES APPLIED FOR AT AN APPROPRIATE SCALE.

See the map below showing the location of the proposed cement grinding processing plant – **Figure 1**, and **Appendix A (i) and (ii)** showing the locality Map.



Figure 1 - Map showing the location of the site within the industrial complex

- (i) A linear activity, a description and co-ordinates of the corridor in which the proposed activity or activities is to be undertaken

The proposed project is not a linear activity.

In the case of linear activities: N/A

Alternatives	Latitude (S)	Longitude (E)
Preferred site	None	None
Alternative site 1	None	None
Starting point of the activity		
Middle point of the activity		
End point of the activity		
Alternative site 2	None	None
Starting point of the activity		
Middle point of the activity		
End point of the activity		

- (ii) On land where the property has not been defined, the co-ordinates within which the activity is to be undertaken

The proposed activity is not on land where the property has not been defined.

(D) A DESCRIPTION OF THE SCOPE OF THE PROPOSED ACTIVITY, INCLUDING –

(i) All listed and specified activities triggered and being applied for

In terms of the Environmental Impact Assessment (EIA) Regulations 2014, as amended, promulgated in terms of the National Environmental Management Act, 1998 (NEMA), certain listed activities are specified for which either a Basic Assessment (GNR 327 and 324) or a full Scoping and Environmental Impact Assessment (GNR 325) is a requirement.

In this instance the project triggers Listing Notice 2 and Listing 3, and therefore will follow the full Environmental Impact Assessment process, following listed activities in Government Notice R 325 and 324 respectively.

Table 1

Indicate the number and date of the relevant notice:	Activity No(s) (in terms of the relevant notice):	Describe each listed activity as per the project description (and not as per wording of the relevant Government Notice) ¹ :
GNR. 325 of 2014 (Listing Notice 2) as amended on 7 April 2017.	Activity No. 6 - the development of facilities or infrastructure for any process or activity which requires a permit or license or an amended permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent, excluding – (i) activities which are identified and included in	In this instance, the activity requires an Atmospheric Emission License (AEL) prior to construction and related operations. The Licensing Authority in this regard is eThekweni Municipality (Health Unit), and the Unit has been contacted and after checking the project description, and they confirmed that the project will trigger a Listed Activity cement production in terms of NEM: AQA (sub-category 5.4): Cement Production (using conventional fuels and raw materials) of Government Notice Regulation 893 of 2013, promulgated in line with section 21 of the National Environmental Management: Air Quality Act 39 of 2004 (NEM:AQA). The proponent has confirmed that the processing plant will not use fuels as outlined under the process flow diagram. eThekweni Municipality further confirmed that it will be necessary to design the plant to ensure compliance with minimum emission standards for new plant standards. They also noted that it will be necessary to ensure compliance with the National Dust Control Regulations and implement a dust management programme which will include monitoring of dust on the fence-line of this Facility. It is in this context that the project is triggering the

	<p>Listing Notice 1 of 2014;</p> <p>(ii) activities which are 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;</p> <p>(iii) the development of facilities or</p>	<p>listed activity in terms of NEMA.</p>
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	<p>infrastructure for the treatment of effluent, <u>polluted water</u>, wastewater or sewerage where such facilities have a daily throughput capacity of 2 000 cubic metres or less; <u>or</u></p> <p>(iv) <u>where the development is directly related to aquaculture facilities or infrastructure where the waste water discharge capacity will not exceed</u></p>	
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	<u>50</u> <u>cubic</u> <u>metres</u> <u>per</u> <u>day.</u>	
GNR. 324 of 2014 (Listing Notice 3) as amended on 7 April 2017.	<p>Activity No. 12 - The clearance of an area of 300 square metres or more of indigenous vegetation except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan.</p> <p>d. <u>KwaZulu – Natal</u></p> <p>vii. On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning</p> <p>xii. Sensitive areas as identified in an environmental management framework as contemplated in chapter 5 of the Act and as adopted by the competent authority;</p>	<p>Part of the subject property is zoned private open space, in the form of a near rectangular, comprising ex-sports fields, earth hardened fill, sports pavilion and precast concrete palisade boundary fencing. It has been used as a soccer field for employees. The estimated extent of this portion is 2,38 HA.</p> <p>This private open space has no significant vegetation per se, but is included here due to its zoning as an open space.</p> <p>This private open space is earmarked for possible future expansion for finished goods dispatch area. The proposed project intends utilizing 9 000 m² of this open field.</p> <p>The processing plant development footprint itself is outside of the D'MOSS area, as reflected in the Map. D'MOSS is defined as a system of open spaces, comprising of land and water that incorporates areas of high biodiversity within eThekweni municipal area.</p>

(ii) A description of the activities to be undertaken, including associated structures and infrastructure;

Background and proposed development

Background

The site has been transferred from the previous owner, and is currently registered under

Industrial Key Point SA (Pty) Ltd as an official land owner. The site was previously used by Venator Africa (Pty) Ltd, KwaZulu – Natal (South Africa) for the manufacturing of titanium dioxide pigments and synthetic gypsum (calcium phosphate). Manufacturing ceased in 2016, and has decommissioned. The previous operator is in the process of dealing with all aspects of remedial order to ensure that the site is fully complaint, and cleared by the Department of Environmental Affairs.

It has also been noticed that there is a remediation order that has been issued by the Department of Environmental Affairs (Ref. Number: 14/11/15/LR107/4 and EDMS Reference: 187649) in terms of section 38(2) of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) in this regard. Venator Africa (Pty) Ltd confirmed that they are responsible for the remediation measures contained in the order. In any event in terms of the sale agreement Vanator Africa (Pty) Ltd is responsible for both demolition and remediation order conditions. The clearance by the Department of Environmental Affairs formed part of the purchase agreement, and is currently underway.

The proposed cement grinding plant is going to be located on the same site, where Venator (Pty) Ltd was operating, with few demolitions and alterations as required and appropriate for the cement grinding plant. The proponent in this regard is Platinum Cement Industries (Pty) Ltd which has 40 years of experience in the cement industry.

It must also be confirmed that an enquiry was done with the Department of Economic Development, Tourism and Environmental Affairs, and the Department confirmed that this activity is triggering activity 6, Listing Notice 2.

Proposed development

The proposed project is the cement grinding processing plant, which is mainly used for powdering non- flammable and non-explosive materials.

The proposed plant is a cement grinding plant of 100TPH / hour production capacity, which will produce various type of cement, i.e. CEM I, CEM II, CEM III and CEM IV, as per international standards and SABS approved standard. The raw materials for this project are Clinker, Slag, limestone, fly ash and Gypsum. Clinker will be purchased from overseas market, and imported from countries outside of South Africa. However, natural gypsum, slag, limestone, fly ash will be sourced from the local markets in South Africa and transported by trucks and rail to the plant.

The main raw material i.e. clinker will be brought on site from abroad already semi-processed, and this will drastically reduce the amount of energy required for processing with regard to this project. From the harbour the mentioned raw material will be transported by trucks and rail to the cement processing plant. The rail infrastructure is fully developed within the site, as can be seen under **Figure 3** below.

All the raw material like clinker, gypsum, limestone, fly ash, slag will be transported by trucks and rail and will be put in the receiving hoppers, and thereafter sent to the covered storage

shed possible by Grab Crane. The raw material will then be sent to the cement proportioning station. Dust filters will be installed to collect ambient air dust generated during unloading and conveying. The dust will not escape into the outside environment. The shed will be equipped with exhaust fans with dust bag filters to clean the ambient air inside the hall, and to purify and treat the dust.

The raw material will be reclaimed mechanically and transferred to the mill feed hoppers dedicated for each material, and each material will be fed to the grinding mill in required proportions, as pre-determined by the laboratory test.

The Grinding Mill will be a closed-circuit ball mill or vertical mill, which will be equipped with a high efficiency bag filter to collect all dust. The ground finished cement product will be conveyed by horizontal and vertical bucket conveyors to steel silos. All the conveyors will be closed to avoid dust leakage. The bucket elevator and steel cement silos will be installed outside the hall because of their size. The transfer points are equipped with bag filters to purify and treat the dust. There will be steel silos, dedicated for each type of cement that will be stored.

The packaging plant will have rotary packers for filling the bags. The weight of the bags will be controlled automatically by load cells installed on the packers. There will be dust collectors installed on top of the packers to collect dust emitted from the packer spouts and other points in the packing plant to ensure environmental protection standards. The filled bags will be transferred by conveyors belt for palletizing and shrink wrapped and then transferred to the truck loading bays for dispatching. The loaded trucks will pass over the weighbridge for check of the final weight before exit at the security gate.

The quality control laboratory will be installed to test the raw materials like clinker, gypsum, limestone, fly ash and slag. Testing of cement during grinding and packaging stages will be carried out. The strength of the cement produced will also be tested and checked to ensure for compliance to standard specifications, and all manufacturing products will be as per international standards, SABS and National Regulator for Compulsory Specifications (NRCS) compliant and approved.

The dust collection filters will be the state-of-the-art design meeting the international standards limits of dust emission. The mill feed hoppers will also have bag filters. The mill exhaust air will pass through a big bag type dust collector. There will be bag filters at all transfer points of material conveyors, before and after the mill. The bucket elevator will have bag type dust collector.

In summary the simplified process will involve the arrival of the raw materials in the form of clinker, slag, limestone, fly ash and gypsum, which is put in the covered warehouse, then to the grinding mill where the raw material is grinded into powder, then finished product, packed in bags, palletized and further shrink wrapped and exit the plant for selling.

The activities at the facilities will flow as follows:

- Offloading from truck/rail to stockpiles/feed bins:
- Mechanical loading of the mill feed hoppers
- Loading from the hoppers to the conveyor belts
- Loading to grinding mill
- Loading to cement silos (x4)
- Loading from silos to conveyor belts
- Packing of cement in packaging plant by rotary packers

[See the attached schematic diagram of the process - Appendix B]

The actual cement grinding processing plant will take about 8.14 HA, 2.38 HA will be the private open space that is earmarked for possible future expansion for finished goods dispatch area, 0.10 HA existing tar road connecting the processing plant area to the private open space, 8.85 HA for container storage, transport yard and other warehousing for general items, 1.62 HA D'MOSS and another 7.60 HA as D'MOSS. The development footprint will not encroach on any of the surrounding D'MOSS area.

Overview

The cement manufacturing process broadly and generally entail the following, although not all steps are necessarily applicable to this proposed plant:

Step 1: Mining.

Step 2: Crushing, stacking, and reclaiming of raw materials.

Step 3: Raw meal drying, grinding, and homogenization.

Step 4: Clinkerization.

Step 5: **Cement** grinding and storage.

Step 6: Packing.

Project objectives

The intention of the project is the manufacturing of the cement that will be used for various infrastructure projects in KwaZulu – Natal, and South Africa as a whole and beyond.

As highlighted above, the proposed plant will utilise the existing site that was previously used by Venator Africa (Pty) Ltd. The latter was a heavy industry manufacturing titanium dioxide pigments and synthetic gypsum (calcium phosphate). The Venator Africa (Pty) Ltd operations ceased in 2016, however the site has all the required infrastructure that can be used by the proposed plant, including the buildings.

Site layout

The preliminary site layout is attached as **Appendix C**.

Raw material

The raw material will consist of:

- Clicker, gypsum, limestone slag and fly ash.
- The raw material consumption will depend on the required sales for each type of cement.
- Raw material supplies: clinker and small amount of gypsum will be imported and delivered by trucks & rail port;
- Limestone, fly ash, bulk of gypsum and slag will be locally supplied for storage as follows:

The storage and tonnage will be as per the process flow diagram.

At this stage it must also be highlighted that there will be fuel/ diesel stored on site for the standby generator, which is anticipated to be far less than 28m³ at any given time.

Final products according to SANS 50197 – 1 types are:

- CEM I – Portland cement
- CEM II – Portland limestone
- CEM III – Blast furnace cement
- CEM IV – Pozzolanic cement

These cement types will be stored in four (4) separate silos.

Operational hours

- Working hours per day – 22 hours.
- Working hours per month – 6864 hours.
- Working hours per year – 572 hours

Services on site

The site is fully serviced, and several utility services are supplied either by Acacia Operations Services or other provider i.e., Electricity, Water, Security, Inorganic Effluent Treatment, Sanitation, Steam, Rail, Park Services, Effluent Pipeline, Me-thane Rich Gas and Sulphuric Acid Supply.

Sewerage

The site has fully fledged sewer system.

Water

The property has portable water.

Roads (Regional and internal)

The subject property's location affords easy access. The nearest arterial is the (N2) Durban to

Port Edward National Road (South Coast Highway/ Toll Road) situated 3,5 kilometres from the subject property via the Dickens Road freeway off-ramp. The old Durban International Airport lies 9 kilometres north of the subject property.

The site itself has existing internal roads, and there are no additional roads that will be constructed.

Cement product dispatching

Cement will be dispatched in two ways i.e. bag cement which will be packed in 50kg bags by packer, which will be palletized and shrink wrapped automatically at packaging plant. There will be four types of cement in terms of quality and strength stored separately as CEM I, CEM II, CEM III and CEM IV as highlighted above. It is anticipated that there will be 70 trucks per day transporting raw material and final bag cement product.

Secondly, cement will also be dispatched as bulk cement, which will be loaded on covered tankers or silos trucks which will be transported and delivered in bulk as opposed to bags. The bulk delivery will be for the customers who use bulk cement for their operations i.e. Industrial usage and Mega Projects. It is anticipated that 10 trucks per day for this category will be required.

Stormwater

According to the Environmental Resources Management Southern Africa (Pty) Ltd study conducted on site, the site has a storm water management system which drains the operation areas by means of an above and below ground drainage system.

Electricity

There is currently electricity on site, supplied directly by eThekweni Municipality. The electricity infrastructure was last provided as follows:

Infrastructure	Number	Comments
Installed capacity at Pierce Road sub station	15, MVA, 11 kv	Supplied to site through two 11 kV feeders
Medium voltage transformers	9	Split across three substations, 11 kV to 3.3 kV.
Low voltage transformers	11	Split across four substations, 11 kV to 400 V.

Refuse / Waste Management

There will be storage of general waste on site albeit on temporary basis as eThekweni Municipality is collecting waste once a week, alternatively a private service provider will be engaged. No hazardous waste is going to be generated by the plant nor stored on site.

Waste management during construction phase

General waste – the general waste likely to be generated during the project construction include litter from workers on site like plastics and papers. The suppliers and construction in general are likely to generate cans, papers and empty cement bags.

Waste management during operational phase

General waste – paper and cans, cardboards, plastics and food material and items utilized by members of staff.

It is anticipated that the stored waste before collection will be below the threshold of 100m³, too little to warrant a waste license in terms of GN 718: Category A; B & C. The project will be encouraged to promote the recycling of material like paper, glass, tins and plastic bottles and do separation at source. The recycling is also anticipated to be below 10 tons per month.

The refuse storage or bin area has been demarcated as depicted in the project layout . All waste generated on site will be disposed at the nearest municipal landfill site, likely to be Illovo Landfill site.

Construction phase

Scope of civil works

The following is envisaged for the development of the site:

- Existing buildings will be used, other sections modified or demolished as may be appropriate.

It is anticipated that the site construction will take 4 – 6 months to complete, if the environmental authorisation is granted. However, due to the complexity of the project there could be external variables and influences which cannot be controlled by the applicant.

The construction phase will follow the Environmental Management Programme and recommendations of Specialists studies and Plans compiled for the project.

(E) A DESCRIPTION OF THE POLICY AND LEGISLATIVE CONTEXT WITHIN WHICH THE DEVELOPMENT IS PROPOSED INCLUDING –

- (i) *An identification of all legislation polices, plans, guidelines, spatial tools, municipal development planning frameworks, and instruments that are applicable to this activity and are to be considered in the assessment process;*

Table 2

Legislation	Authority	Year
National Environmental Management Act (No. 107 of 1998).	Department of Environmental Affairs (DEA) and KZN Provincial	1998

	Department of Economic Development, Tourism and Environmental Affairs (EDTEA).	
EIA Regulations, 2014 as amended.	DEA and EDTEA	2014
Guideline:5 Assessment of Alternatives and Impacts in support of EIA Regulations	DEA and EDTEA	2006
Guideline on Need and Desirability, Department of Environmental Affairs	DEA	2017
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	DEA and EDTEA	2004
The National Water Act (No. 36 of 1998).	Department of Water and Sanitation (DWS)	1998
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)	DEA and EDTEA	2008
National Environmental Management: Biodiversity Act (Act 10 of 2004)	DEA and EDTEA	2004
Alien and Invasive Species Regulations.	DEA and EDTEA	2014
KwaZulu-Natal Heritage Act	KZN Amafa Research and Institute	2018
National Heritage Resources Act National Heritage Council Act	KZN Amafa Research and Institute	1999 1999
South African Constitution	RSA	1996
Promotion of Administrative Justice	Department of Justice	2000

Act, 2000		
Occupational Health and Safety Act, 85 of 1993	Department of Labour	1993
National Forests Act (Act No. 84 of 1998)	Department of Agriculture, Forestry and Fisheries (DAFF)	1998
Noise Control Regulations (Regulations 154, 10 January 1992)	DEA and EDTEA	1992
Environment Conservation Act 73 of 1989 (Noise Control Regulation in terms of section 25 of the Environmental Conservation Act, 1989 – GNR 154, commenced 10 January 1992)	DEFF / EDTEA	1989, commenced 1992
Petroleum Products Act, 1977 (Act 120 of 1977) as amended.	Department of Energy	1977
National Development Plan	RSA Government Departments, Municipalities and Public Entities	2011
SANS 10400 amendments, in terms of the National Building Regulations and Building Standards Act, No. 103 of 1977, as amended	eThekwini Municipality	1977
eThekwini Municipality Integrated Development Plan (IDP)	eThekwini Municipality	2019 / 2020

(II) How the proposed activity complies with and responds to the legislation and policy context, plans, guidelines, tools frameworks, and instruments

Table 3

Legislation, polices, plans, guidelines, spatial tools, municipal development	Compliance and applicability
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planning frameworks and other instruments	
National Environmental Management Act	The environmental assessment is conducted as per the dictates of this Act.
EIA Regulations, 2014	The whole environmental assessment process has to comply with these Regulations.
Guideline:5 Assessment of Alternatives and Impacts in support of EIA Regulations	These Guidelines are applicable in terms of the exploration of alternatives.
Guideline on Need and Desirability, Department of Environmental Affairs	In terms of these guidelines the need and desirability of the project has to cover certain specifics like training, safety, benefits to the local people and the alignment of planning related issues to the project.
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004)	In this instance, the activity requires an Atmospheric Emission License (AEL). The Licensing Authority in this regard is eThekweni Health, which has confirmed that the project will trigger a Listed Activity cement production in terms of NEM: AQA (sub-category 5.4).
The National Water Act	The Act is applicable in instances of any drainage lines and watercourse in the vicinity of the site. The project needs to take precautionary measures to safeguard water resources.
KwaZulu-Natal Heritage Act / KwaZulu-Natal Council Act	The legislation is relevant in safeguarding heritage objects on site and its vicinity. This is applicable in regulating demolition on site.
National Environmental Management: Waste Act	All waste related issues are governed by this legislation e.g. appropriate disposal of solid waste during construction and operational phases.
Occupational Health and Safety Act	Safety and health issues on site, especially during construction and operational phases.
National Forests Act (Act 84 of 1998), 1998	The Act is applicable as the site is surrounded by DMOSS area. Although no encroachment will take place. It safeguards indigenous and protected tree species in terms of section (7) and (15) of the National Forests Act (Act 84 of 1998), 1998
Noise Control Regulations (Regulations 154, 10 January 1992)	This will regulate any noise on site.
Environment Conservation Act 73 of 1989 (Noise Control Regulation in terms of section 25 of the Environmental Conservation Act, 1989 – GNR 154 , commenced 10 January 1992)	This relates to any noise that may need to be controlled during construction and operational phases of the project.
Petroleum Products Act, 1977 (Act 120 of 1977) as amended.	This will regulate the storage of 50m ³ of diesel that will be stored on site for the stand-by

	generator.
National Environmental Management: Biodiversity Act, 2004	The Act is applicable in the context of the protection of tree species and the presence of indigenous biological resources. This is crucial because the site is surrounded by D'MOSS.
Alien and Invasive Species Regulations.	This will be applicable in the context of an alien plants eradication programme on site.
National Development Plan (NDP).	This relates to issues of job creation, and skills development with regard to the training that will be provided by the facility. Chapter 12 of the NDP highlights issues of building safer communities.
SANS 10400 amendments, in terms of the National Building Regulations and Building Standards Act, No. 103 of 1977, as amended	For all buildings the relevant SANS has to be followed to the letter.
eThekweni Municipality Integrated Development Plan (IDP)	The project is in line with the spirit and ethos of the eThekweni 2019 / 2020 IDP document, especially the issue of job creation.

(F) A MOTIVATION FOR THE NEED AND DESIRABILITY FOR THE PROPOSED DEVELOPMENT INCLUDING THE NEED AND DESIRABILITY OF THE ACTIVITY IN THE CONTEXT OF THE PREFERRED LOCATION;

The need and desirability of the project has to be informed by the principle of sustainability as provided for in the National Environmental Management Act, Guideline on Need and Desirability issued by the National Department of Environmental Affairs (2017). This serves as a way of ensuring that the proposed development is ecologically sustainable, and socially and economically justifiable.

The Guideline cited above among other things state that it is important to review the issues of need and desirability against the listed activities that have given rise to the application in its entirety. The need and desirability have to consider the broader community needs and interests as reflected in the municipal Integrated Development Plan (IDP), Spatial Development Framework (SDF) and Environmental Management Framework (EMF) for the area where the project is located.

The use of cement for the building of houses and infrastructure projects in South Africa, which is a country with such huge infrastructural backlogs is evident. Cement is central in the building and construction of the modern world. This relates to the building of roads, development, important construction material, bridges, harbours and runways.

Cement manufacturing will therefore provide both direct and indirect employment to a large number of people. It is anticipated that such employment will be accompanied by provision of different skills for the locals to be employed. The project will contribute significantly to the Gross Domestic Product (GDP) of the Republic of South Africa.

The need for this project has been endorsed by Trade & Investment KwaZulu – Natal which is the trade and investment promotion agency established specifically to promote the Province of KwaZulu – Natal as an investment destination, as well as to facilitate trade by assisting local companies to access international markets.

Trade & Investment KwaZulu-Natal also retain and expand trade and export activities by linking the opportunities to the developmental needs of the KwaZulu-Natal community. TIKZN has played a crucial facilitation role for Platinum Cement Industries to execute the cement manufacturing project from its conceptual stages. This has ranged from site identification, to assisting with regulatory requirements, identification of key partners and role players to enable the project to be successful. This has also included the sourcing of funding from various financial institutions, monitoring and reporting of progress.

Before the pandemic of Covid 19, this project was already seen as an important project that would assist with import substitution and increase the use of local inputs in the cement value chain. The cement industry has over the years seen an increase in imports and government had already taken significant steps to reduce imports by introducing imports tariffs in an effort to discourage imports and promote and support local production. Now that there is even a greater need for the economic recovery due to the economic ruin caused by Covid 19, this project is seen as likely to have a significant contribution in this regard.

Vietnam and Pakistan are examples of countries that have tended to impact negatively on the local supply of cement undercutting the South African price by up to 45%. This has led to the International Trade and Administration Commission to recommend the imposition of import tariffs on cement from outside South Africa. The tariff is intended to level the playing field and to ensure that South African based companies remain competitive. In addition, the import tariff encourages and promotes local production and import substitution which is the reason Platinum Cement Industries is planning to establish their own plant.

While there are six main players in South Africa, it is noteworthy that there are only two significant players in the cement industry in KZN, namely NPC and AfriSam with NPC as a dominant player in KZN. Given that cement as a product is the backbone of the construction and infrastructure development industries, it follows that the big infrastructure projects that are in the pipeline for KZN will depend on a reliable supply of cement. To ensure significant Gross Value Add for the KZN economy it would be important that the value chain that supports the construction and infrastructure development sectors is anchored by input suppliers from KZN. This project will ensure that locally produced products are used and therefore strengthen the KZN value chain.

By its very nature, this project is very strategic as it is the backbone of the catalytic project envisioned and planned for the Province of KwaZulu – Natal. In essence no construction or infrastructure development can take place without the main ingredient, i.e. cement. Cement is the main input in such projects, and in particular as the Province of KwaZulu – Natal plans to rebound the provincial economy through infrastructure. It follows that cement production and its reliable supply becomes crucial.

The location that has been identified for this project is ideal, in the sense that it is within the industrial area, on a site where heavy industry was located. Therefore, no new site has been sought as the proposed plant will use the same buildings with slight demolitions and modifications. It is envisaged that the project will provide employment, and contribute to the support of many families in the Province, while also developing and strengthening the cement value chain in KZN.

The proponent has already purchased this site, which is about 28 HA, from the previous operator who ceased operations in 2016. The current site has engineering services like internal roads, electricity, sewer, waste management and portable water in place, and there is no need to look for another site where new infrastructure may need to be installed. The project will optimize the use of existing resources and infrastructure. It would therefore be illogical to abandon the site that is already within an industrial area, and well serviced, and go and acquire another piece of land elsewhere.

The proposed site is already within an industrial area, away from the area settled by people. In the context of the proposed activity and its associated activities, it does make sense to locate this plant within the industrial area. On a national scale, the development will contribute to the country's GDP. At a local scale the plant will play an important role in job creation, and provision of skills.

The key element in the location of the plant was to determine how the proposed project was to impact on the ecological integrity of the area, and how the mitigation measures as outlined below were to be implemented. The main one being emissions and its DMOSS environs. The layout has been compiled as to avoid any encroachment on the surrounding DMOSS area. Furthermore, the plant will make use of the existing buildings and infrastructure.

One of the key local economic indicators for eThekweni Municipality is job creation. The plant is located within the broader area that covers the southern areas including townships and some rural areas, and therefore employment opportunities will be accessible to all these communities. The project will add to the potential employment opportunities that may exist at the present moment, and those that will be created by the plant. The proposed project will provide jobs for the local people both during the construction and operational phases of the project.

The development of the project will play an import role in addressing some of the development challenges facing eThekweni and the KwaZulu – Natal Province through the creation of jobs. The 2019/2020 eThekweni Municipality's integrated development plan (IDP) states that unemployment rate for eThekweni increased to 27.1% in Q2 2018 from 26.7% in Q1 2018. It is also important to note that the labour force absorption rate showed an insignificant increase of 0.4%, and the participation rate decreased (from 59.31% to 59.1%) over the same period, indicating that there are more people looking for employment, and the likelihood of them finding employment has decreased. In terms of skill levels, the largest portion of the workforce is employed at semi-skilled level followed by skilled and low-skilled. This project will go a long way towards achieving some of eThekweni 's stated strategic goals. The unemployment rate in South Africa is known to be contributing immensely to the social ills the country is currently

experiencing.

At times the impact of unemployment on society is often underestimated; whereas it includes factors like psychological harm, loss of work ethic, self-confidence, increase in ailments, disruption of family and social relations, increase in social exclusion and accentuation of race and gender tensions. In this regard the project is mindful of the challenge, and intends contributing in a holistic and balanced manner.

Overall, the plant will provide livelihoods to the local people and enhance local economic development. The developer has indicated a strong commitment to the upliftment of the locals.

The proposed development will unfold in line with the following project phases:

i. Pre-construction phase and planning

This phase offer opportunities that are provided by the project to the local professional service providers whenever the skills are available. It does also offer opportunities for manual work; in this instance this will entail manual work during demolition.

ii. Construction phase

This phase is highly technical in terms of engineers, artisans and the like, but also make provision for the manual worker and opportunities for the local suppliers and small sub-contractors. Manufacturers of materials will create employment and increase economic activities. Transporter of materials will create jobs in their sector. The utilization of skilled workers and training of less skilled workers in the construction will take place on site. The opportunity afforded to unskilled workers to work and interact with skilled personnel will assist in the informal transfer of skills with long term benefits.

iii. Operational phase

Provision of sustainable and permanent jobs to the locals. The developers have indicated their desire to employ and prioritise the local people.

Looking at the guideline on need and desirability publication, compiled as part of the EIA Guideline & Information Document Series, one has found it very helpful in further assessing this development. It tends to focus on planning tools like the IDP, SDF and EMF. The said guideline provides a list of 14 aspects, which must be considered. The points below indicate how different aspects have been addressed for the proposed development.

Among other things, the purpose of establishing need and desirability is to ensure that land use development proposals are necessary for development purposes, desirable and in the public interest. This promotes developments that result in sustainable land utilization which is publicly acceptable and relevant in terms of overall economic growth, development, convenience, and benefits at all levels of society.

The critical question for most projects is whether or not they satisfy the “need and desirability” test i.e. whether there is a need or not for the project in question, and whether it is desirable.

The term need and desirability is primarily assessed from the perspective of the public good or broader community. This will among other things look at whether the project makes a positive impact on the lives of affected people or if it negatively affects them. Need and desirability has always been a fundamental principle for most planning and development activities and is used as a yardstick to formulate and assess development proposals. This is critical in areas which falls under local development plans, to ensure that such development is not in conflict with polices and plans.

1. *Is the land use (associated with the activity being applied for) considered within the timeframe intended by the existing approved Spatial Development Framework (SDF) agreed to by the relevant environmental authority? (i.e. is the proposed development in line with the projects and programmes identified as priorities within the credible IDP).*

Response: The project falls within eThekweni Metro whose IDP (2019 – 2020)’s long term vision among other things talks about its commitment to achieving a Vision of “Being Africa’s Most Caring and Liveable City” through the effective and efficient delivery of basic services, and its intention to invest in areas that will make the greatest social and economic impact within the City. It also talks about the importance of local economic development. The proposed project will go a long way in meeting some of these aspirations, in particular the local economic development aspects as contained in the municipal strategic documents.

2. *Should development, or if applicable, expansion of the town/area concerned in terms of this land use (associated with the activity being applied for) occur here at this point in time?*

Response: As highlighted above, the identified site is located within a well-established industrial area. The site is already zoned general industry, with existing buildings that will be utilized with minor modifications and demolition, as soon as all authorisations are in place. The main current zoning allows the proposed land use.

3. *Does the community/area need the activity and the associated land use concerned (is it a societal priority)? This refers to the strategic as well as local level (e.g. development is a national priority, but within a specific local context it could be inappropriate).*

Response: The timing of the project is perfect in the context of economic devastation caused by Covid 19 pandemic. It is coming at the time when most people have lost their jobs, and companies closed down.

4. *Are the necessary services with adequate capacity currently available (at the time of application), or must additional capacity be created to cater for the development?*

Response: The area in question has world class engineering services in the form of electricity, sewer infrastructure, refuse collection service and portable water infrastructure.

5. *Is this development provided for the infrastructure planning of the municipality, and if not what will the implication be on the infrastructure planning of the municipality (priority and placement of services and opportunity costs)?*

Response: The project is located within a well serviced municipal area, and it is the national key point.

6. *Is this project part of a national programme to address an issue of national concern or importance?*

Response: Yes, in terms of reducing unemployment and poverty in South Africa. The Province of KwaZulu-Natal in line with the current plans of national government has identified key infrastructure and manufacturing projects that would enable the economy of the Province to rebound post-Covid 19, and this project falls under that category.

7. *Is the development the best practicable environmental option for this land/site?*

Response: The Cement plant will be located within a well-established industrial area. The site is within an area that is already zoned general industry. There will be no need to look for another site that may affect the environment in terms of installing new infrastructure. The project will not encroach on the nearby D'MOSS area, and drainage lines in the area.

8. *Would the approval of this application compromise the integrity of the existing approved and credible municipal IDP and SDF as agreed to by the relevant authorities?*

Response: No, the project will actually enhance the goals of the IDP i.e. local economic development while ensuring environmental sustainability. The site is already zoned General Industry.

9. *Would the approval of this application compromise the integrity of the existing environmental management priorities for the area (e.g. as defined in EMFs), and if so, can it be justified in terms of sustainability considerations?*

Response: As highlighted above the project will not encroach on the area that has been identified as DMOSS by eThekweni Municipality. No indigenous tree species will be affected by the project as it will be on the area that has buildings already which will be demolished. The air quality study will be conducted, and the application of the atmospheric emission license is currently under way. In addition, eThekweni Municipality will be afforded an opportunity to comment on this scoping report and subsequent reports.

10. *Do location factors favour this land use (associated with the activity applied for) at this place? (This relates to the contextualisation of the proposed land use on this site within its broader context).*

Response: The proposed facility is located in an ideal location in terms of engineering infrastructure, transport network and accessibility. As highlighted above the site is on an area zoned general industry which allows this type of development.

11. *How will the activity or the land use associated with the activity applied for, impact on sensitive natural and cultural areas (built and rural / natural environment)?*

Response: The project will not impact on the indigenous tree species, and broadly biodiversity, as it will be on the area that has been occupied by buildings for many years, and these will be used or in some instances modified or demolished as may be appropriate.

12. *How will the development impact on people's health and wellbeing (e.g., in terms of noise, odours, visual character and sense of place, etc)?*

Response: The proposed development does require an application for atmospheric emission license which is currently conducted by a Specialist from WSP Environmental (Pty) Ltd. The related study will look at issues of emission by the project and air quality. The licensing authority can only grant approval if the emission is within the legal limits. In terms of the visual character and sense of place the site is located within an industrial area, and unlikely to change the character of the place.

13. *Will the proposed activity or the land use associated with the activity applied for, result in unacceptable opportunity costs?*

Response: No.

14. *Will the proposed land use result in unacceptable cumulative impacts?*

Response: No.

As stated above regarding need and desirability this must also be looked in the context of the environment process in its entirety. In conclusion the following extract from the guidelines provides a succinct summary of how need and desirability should be viewed in terms of the proposed project "However, to determine if the proposed activity is the best option when considering "need and desirability" this must be informed by the sum of all the impacts considered holistically.

(G) A FULL DESCRIPTION OF THE PROCESS FOLLOWED TO REACH THE PROPOSED PREFERRED ACTIVITY, SITE AND LOCATION OF THE DEVELOPMENT FOOTPRINT WITHIN THE SITE, INCLUDING

-

(i) Details of all the alternatives considered

Activity, site and location of the development footprint within the site

Alternatives are required and important in that they are a basic integrated environmental management (IEM) principle. In this instance, there are no alternatives in terms of the actual activity, site and location.

The activity on this site and location has been chosen based on the nature of the activity i.e. an industry for the manufacturing of cement (cement grinding processing plant). The activity of this nature has to be located within an area zoned general industry in terms of municipal planning procedures. In this instance the plant will be located on the location that previously housed a heavy plant Venator Africa (Pty) Ltd. The operations ceased on this site in 2016, and it has been lying unused while it has all the infrastructure needed for the proposed plant.

The site is within the Industrial Complex, that is well established and has been in existence for several years, which is also a national key point. The proponent has already bought this property for this specific activity. It will not make any sense at this stage to abandon this site for no apparent reason, to buy another one, unless if it has serious flaws in terms of the current assessments.

The whole Industrial Complex is already housing several industries. Trade & Investment KwaZulu – Natal, which is an entity responsible for promoting investment in KwaZulu – Natal has also been involved in the identification of this site, and they recommended the use of this site as it was not used at the time as alluded to above. Therefore, the site location is the outcome of inputs and negotiations among the site owners and other stakeholders like TIKZN and some financial institutions. It is in this context that this exact location has been identified. However, it must be stated that the site is still undergoing various assessments to establish its suitability, including the environmental impact assessment. The stakeholders are still to be fully engaged about the project and their inputs considered.

The layout originally proposed the driveway at the rear section of the warehouse; however this was discouraged on the basis of the tree species at the back of the site, and was accordingly modified.

The chosen site and location are not in conflict with the current municipal planning tools like the IDP and SDF. The infrastructure for the current and proposed activities within the property is in place, sound and intact. There are no serious flaws identified thus far.

The designs and technology employed by the project will be in line with international standards, and be in line with acceptable legal requirements.

No – go option

The no-go option is defined as an option of not undertaking the proposed activity and its inherent alternatives.

(ii) Details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs;

The project has commenced and will follow the standard public participation process as contemplated under Regulation 41 of the 2014 EIA Regulations, as outlined below.

The public participation process must fulfil the requirements outlined in NEMA, the EIA Regulations, and if applicable the NEM: Waste Act and / or the NEM: Air Quality Act. The public participation for this project will unfold, and has unfolded as follows:

(a) Introduction

It must be stated that public participation approach and the project itself will strive to ensure that reasonable opportunity is provided for public participation and that all administrative actions are reasonable and do not prejudice anyone.

(b) Pre – application

The pre - application meeting was held with eThekweni District Office of the Department of Economic Development, Tourism and Environmental Affairs (EDTEA), Mondli Consulting Services representatives and the representatives of the applicant, Platinum Cement Industries (Pty) Ltd on 23 September 2020 at 9.30am (EDTEA Offices).

(c) Site Notices

The site notices have already been put at conspicuous areas within the site. The notices are written in both English and IsiZulu languages. **See Appendices D (1) (i) and (ii).**

(d) Communication with ward Cllr and Ndunankulu Makhanya of Sobonakhona Traditional Council

Mondli Consulting Services contacted ward 93 Cllr Zungu and briefed her about the project. All communication with the ward councilor is through e-mail system and telephonic communication. A request has been made to the councilor to spread the project message through her own municipal programmes whenever possible. The scoping report is currently circulated to stakeholders including the Municipality constituted by councilors.

Ndunankulu Makhanya, representing Sobonakhona Traditional Council has also been contacted as a Traditional Council falling under ward 93 where the Industrial Complex is located.

(e) Public Meeting

The issue of the public meeting or open day will be discussed with the ward Cllr and ward leadership in the context of Covid 19. If it is held the minutes and attendance register will be attached as **Appendices D (2) (i) and (ii).**

(f) Identification of stakeholders

The following stakeholders have been identified, and the scoping report is currently circulated to obtain their comments. They include the following:

1. eThekweni Municipality.
2. Ward 93 Cllr.
3. Sobonakhona Traditional Council.
4. KwaZulu – Natal Amafa and Research Institute.
5. Department of Agriculture, Forestry & Fisheries (Forestry Regulations Support).
6. Department of Water and Sanitation.
7. Ezemvelo KZN Wildlife.
8. Department of Economic Development, Tourism and Environmental Affairs (EDTEA)
9. Trade & Investment KwaZulu – Natal.
10. Members of the public.
11. Industrial Complex.
12. South Durban Community Environmental Alliance.

The idea is to circulate the scoping report to stakeholders affording them 30 days commenting period. The scoping report will in the main be e-mailed as most stakeholders are currently preferring this method of communication, and will be hand delivered to those who prefer to get it as hard copies. For those stakeholders who may prefer to get the reports as hard copies, this will be delivered to them either through courier or hand delivered. This will be in line with all health and safety protocols. In this regard the documents will be sanitised, and arrangement made with that stakeholder to receive the documents at the agreed upon time. The follow ups will be done through their provided cell phones and e-mail addresses.

(g) Placing of advert in the local newspapers

The project will be advertised during the month of January 2021 in the Provincial Isolezwe IsiZulu newspaper, and The Mercury English newspaper. The adverts will be attached as **Appendix D (3) (i) and (ii)**.

(h) Authorisation phase

If the project is authorised the same method used to distribute the scoping and environmental assessment reports will be employed to inform interested and affected parties about the decision.

This will include placing the notices on the same newspapers. The stakeholders will also be informed through the ward Councilor, who will be e-mailed the decision and procedure to follow in case someone would like to appeal.

(i) Register of interested and affected parties

A register of all interested and affected parties has been opened, and their comments will be captured accordingly.

(j) Compliance to Environmental Affairs, Forestry & Fisheries (DEFF) directions relating to Covid 19 dated 5 June 2020

Mondli Consulting Services will fully comply with directions regarding measures to address, prevent and combat the spread of Covid-19 related to NEMA permits and licenses in particular provisions of Annexure 3.

We will also consider other methods of communicating the project as may be raised by stakeholders. We will make it our responsibility to ensure that the public participation method proposed is effective, and refined as we proceeded to ensure its effectiveness.

We will encourage less contact, wearing of masks and social distancing; but also conduct virtual and telephonic meetings where practical, but where there are any constraints, we will send hard copies ensuring they are sanitised and delivered following directions, all applicable health and safety protocols in terms of section 27 (2) of the Disaster Management Act.

(k) Declaration relating to applications requiring adherence to Chapter 6 of the EIA Regulations

Furthermore, we have taken the following and / or will take into account and adhere to the following declaration:

- All reasonable measures have been taken to identify potential Interested and Affected Parties (I&As) for the purposes of conducting public participation on the application;
- As far as is reasonably possible and taking into account the specific aspects of the application,

Information containing all relevant facts in respect of the application or proposed application has been made available / and will be made available to potential I&As; and

Participation by potential or registered I & As has been facilitated in such a manner that all potential or registered I&As have been provided / and will be provided with a reasonable opportunity to comment on the application or proposed application; and

- The public participation plan, as agreed with the competent authority, will be adhered to and indicate any deviations from such agreed plan where relevant;

(l) Conclusion

In our view this public participation is in compliance to Regulation 41 of the EIA Regulations, 2014 as amended. We believe also that it has taken into consideration all applicable health and safety protocols in terms of section 27 (2) of the Disaster Management Act. We are of the view that the project has been communicated / and will be communicated widely to the stakeholders to know about it, and we will continue to communicate through various means including the current scoping report, subsequent reports and all other possible means.

(iii) A summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or reasons for not including them

Over and above the TABLE below, see also attached TABLE 5, which is the Register of interested and affected parties.

Table 4

Organisation (I & A party)	Issue / concern raised	EAP's response	Incorporation / Non-incorporation and reasons thereof
Ezemvelo KZN Wildlife	Biodiversity issues. Their comments will be attached as Appendix D (4) .	Scoping report has been circulated to Ezemvelo KZN Wildlife.	Comments will be incorporated onto the Environmental Impact Assessment report (EIAR) and EMPr.
KZN Amafa and Research Institute	Heritage issues, and issues of demolition on site. Comments will be attached as Appendix D (5) .	Scoping report has been forwarded to Amafa.	Comments will be incorporated onto the Environmental Impact Assessment report (EIAR) and EMPr
Department of Water and Sanitation (DWS)	Water and Sanitation issues. Comments will be attached Appendix D (6) .	Scoping report has been circulated to DWS.	Comments will be incorporated onto the Environmental Impact Assessment report (EIAR) and EMPr
Department of Agriculture, Forestry & Fisheries (DEFF) – Forestry Regulations and Support	The Department of Agriculture, Forestry & Fisheries is the authority mandated to regulate activities affecting natural forests and tree species protected in terms of National Forest Act. DAFF comments will be attached as	Scoping report has been circulated to DEFF – Forestry Regulations and Support.	Comments will be incorporated onto the Environmental Impact Assessment report (EIAR) and EMPr

	Appendix D (7)		
eThekwini Municipality	<p>Issues of services, planning and licensing.</p> <p>Comments will be attached as Appendix D (8).</p>	<p>Scoping report has been circulated to eThekwini Municipality, including all its commenting Units including eThekwini Health as a licensing Authority.</p>	<p>Comments will be incorporated onto the Environmental Impact Assessment report (EIAR) and EMPr</p>
Trade & Investment KwaZulu - Natal	<p>Issues of trade and investment for the Province of KwaZulu – Natal.</p> <p>Comments are attached as Appendix D (9).</p>	<p>See attached comments.</p>	<p>Comments incorporated onto the need and desirability of the project.</p>
KwaZulu – Natal Department of Economic Development, Tourism and Environmental Affairs (EDTEA)	<p>EDTEA is the Department mandated with management of environmental issues within KZN Province.</p> <p>Comments will be attached as Appendix D (10).</p>	<p>Draft Scoping report has been circulated to EDTEA.</p>	<p>Comments will be incorporated onto the final Scoping report to be submitted to EDTEA after receipt of comments from all identified stakeholders.</p>
Sobonakhona Traditional Council	<p>Traditional Authority falling under ward 93 where the Industrial Complex is located.</p> <p>Appendix D (11).</p>	<p>Scoping report has been circulated to Sobonakhona Traditional Council.</p>	<p>Comments will be incorporated onto the Environmental Impact Assessment report (EIAR) and EMPr.</p>
South Durban Community Environmental Alliance	<p>Environmental Justice (non-governmental organization) operating in the South Durban area.</p> <p>Comments will be attached as Appendix D (12).</p>	<p>Scoping report has been circulated to South Durban Community Environmental Alliance.</p>	<p>Comments will be incorporated onto the Environmental Impact Assessment report (EIAR) and EMPr.</p>

(iv) The environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects

There are no alternative sites as the project is located on the site that has been used as an industry, the alternatives will only relate to the layout. The focus will therefore be on the preferred site for the purposes of this section.

(Preferred site)

Geographical and physical attributes

The site is within Umbogintwini Industrial Complex. The site is surrounded by the area identified by eThekweni Municipality as D'MOSS, although the actual development footprint is not going to encroach on D'MOSS. There is a drainage line flowing as you enter the site.

Land Use character

The whole site falls within the Industrial complex surrounded by industries, and the proposed site has buildings that are currently not used. The site is zoned General industry.

It is not anticipated that the project will negatively impact on the visual quality of the surrounding area nor interface as the site is still located within the industrial complex, and will retain the industrial land use character.

Topography

The site is rather flat. The surrounding area is characterised by a gently undulating coastal plain with low hills.

Climate

The site experiences warm and temperate weather with summer rainfall and cold winters. The area is characterized by high humidity and does not experience frost. The mean annual precipitation is about 978 mm.

Description of ecological baseline

Vegetation and Fauna

Vegetation

Most of the site has buildings, but surrounded by an area identified by eThekweni as D'MOSS. A study pertaining to the Vegetation is currently under way conducted by Indiflora. The site is also characterised by alien species including Bug weed that were identified on site.

Fauna

The fauna is unlikely to be disturbed by the project, as there will be no encroachment on the area with high biodiversity theme, identified as D'MOSS.

Soil and Geology

According to the study that was previously done by Environmental Resources Management Southern Africa (Pty) Ltd on site, the Regional geology comprises quaternary sands of the Berea Formation sands successively overlying tillites of the Dwyka Formation, and underlain by the Natal Group sandstone.

Groundwater and Wetlands / Hydrology

According to the same study by Environmental Resources Management Southern Africa (Pty) Ltd, the site has a storm water management system which drains the operation areas by means of an above and below ground drainage system. The flow is in a general southeast direction towards a pollution control dam. According to site management, whilst the site was operational, the water quality of the stored water was tested for pH prior to being released to an unnamed watercourse located off site beyond the eastern site boundary that originates east of the site within the Umbogintwini Industrial Complex, and flows in a general southerly direction, discharging into the Umbogovongo wetland area.

Social attributes

The area is falling under eThekweni Municipality, ward 93 of the municipal demarcation system. The area comprises of some townships and rural areas of Umbumbulu in the south. The Traditional Council located within this ward is Sobonakhona Traditional Council of the Makhanya clan.

Economic attributes

The chosen site is within Umbogintwini Industrial complex, which is one of the economic hubs in terms of industrial development in South Africa. The project will contribute to the economy and GDP of the country. The project will also contribute to the economy of Durban and KwaZulu – Natal in terms of jobs and economic development.

Heritage, historical features and cultural aspects

Culturally significant elements

The development footprint is unlikely to have heritage objects nor graves as it has buildings on it, that have been standing for many years. The open field earmarked for future expansion is highly disturbed. However, the comments from KZN Amafa and Research Institute will be sought, and this scoping report will also be submitted to the entity.

Buildings and structures to be affected

On making enquiries with the previous owners, it transpired that there was approval that was previously obtained from Amafa in relation to the demolition of bunkers situated at Sub L of 33 of Umlazi Native Location No. 4676, being Lodestar Avenue, Umbogintwini. (Ref. 10/3Dbn/02 11/93).

Like all development projects it is critical to take into consideration the South African National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act of 2018 which requires that operations that expose archaeological or historical remains should cease immediately, pending evaluation by the provincial heritage agency KZN Amafa and Research Institute.

In this regard KZN Amafa and Research Institute will be contacted for comments through this scoping report.

Site photographs – see site photographs depicted below as Figures 2 and 3.



Figure 2 - Site photograph (Source, Broll Information document, 2018).



Figure 3 - rail infrastructure within the site premises (Source, Broll Information document, 2018).

(v) The impacts and risks which have informed the identification of each alternative, including the nature, significance, consequence, extent, duration and probability of such identified impacts, including the degree to which these impacts –

(aa) can be reversed

In essence the preferred site is more of a “swap” with the industry that was located on this specific location which ceased operations in 2016. The proposed industry is less heavy than the previous one located on the same site. The reversibility of the impacts is currently being assessed through the environmental impact assessment and air quality studies to be followed by an application for atmospheric emission license.

(bb) may cause irreplaceable loss of resources; and

The mitigation measures will be put in place to avoid any impact on the environment. It is not foreseen at this stage that there will be loss of resources, and the project will not encroach on the nearby D'MOSS area which is an area showing high biodiversity theme in terms of the national Screening tool.

The vegetation study that is conducted will also include the private open space that is earmarked for the proposed 9 000m² packaging plant.

The overall assessment is underway.

(cc) can be avoided, managed or mitigated

The impact of emission will be determined through the air quality study and application for the atmospheric license process. All other impacts will be assessed as part of the current environmental impact assessment process.

Impacts identified for the preferred site

- Soil erosion during site construction phase.
- Air pollution in the form of dust during construction.
- Air pollution during the operational stage.
- Habitat loss – private open space, where 9 000 m² is earmarked for the packaging plant.
- Surface water pollution.
- Soil contamination during construction.
- Stockpiling.
- Location of construction camp.
- Littering and solid waste.
- Concrete mixing.
- Alien plants – opportunistic invasion after site construction.
- Noise pollution during both construction and operational phases.
- Traffic Management.
- Heritage – demolition and heritage objects.
- Health and Safety.
- Social impact (health and well-being).
- Jobs and economic development.

The EIA Regulations, 2014 as amended stipulates requirements that need to be adhered to and objectives to be reached when undertaking environmental impact assessment. Key to a successful EIA is the accurate identification of environmental and social impacts and the subsequent assessment of the likely significance of each impact. This will assist in facilitating the prioritization of impacts, the identification of fatal flaws and the identification of mitigation measures.

Table 6: interpretation of the overall significance of impacts is presented below

Scoring value	Significance
>35	<p>High – The impact is total / consuming / eliminating – In the case of adverse impacts, there is no possible mitigation that could offset the impact, or mitigation is difficult, expensive, time-consuming or some combination of these. Social, cultural and economic activities of communities are disrupted to such an extent that these come to a halt. Mitigation may not be possible / practical. Consider a potentially fatal flow in the project.</p>
25 – 35	<p>High – The impact is profound – In the case of adverse impacts, there are few opportunities for mitigation that could offset the impact, or mitigation has a limited effect on the impact. Social, cultural and economic activities of communities are disrupted to such an extent that their operation is severely impeded. Mitigation may not be possible / practical. Consider a potential fatal flaw in the project.</p>

20 - 25	Medium – The impact is considerate / substantial – The impact is of great importance. Failure to mitigate with the objective of reducing the impact to acceptable levels could render the entire project option or entire project proposal unacceptable. Mitigation is therefore essential.
7 - 20	Medium - The impact is material / important to investigate – The impact is of importance and is therefore considered to have a substantial impact. Mitigation is required to reduce the negative impacts and such impacts need to be evaluated carefully.
4 - 7	Low – The impact is marginal / slight / minor – The impact is of little importance, but may require limited mitigation; or it may be rendered acceptable in the light of proposed mitigation.
Scoring value	Significance
0 - 4	Low – The impact is unimportant / inconsequential / indiscernible – no mitigation required, or it may be rendered acceptable in light or proposed mitigation.

The significant rating of each identified impact will be reviewed by the EAP through professional judgement and checklists. The checklist entails comprehensive list of possible environmental effects and impacts. In assessing each impact and its significance the evaluation will be based on the following elements:

Nature of the impact

The environmental impacts of a project are those resultant changes in environmental parameters, in space and time, compared with what would have happened had the project not been undertaken or if the no-go option was adopted.

Extent - This talk to the physical and spatial scale of the impact. Below are some of the standard terms used in assessment relating to the extent.

Table 7 - Extent

RATING	EXTENT SCALE
7	International - The impacted area extends beyond national boundaries.
6	National – The impacted area extends beyond provincial boundaries.
5	Ecosystem – The impact could affect areas essentially linked to the site in terms of significantly impacting ecosystem functioning.
4	Regional – The impact could affect the site including the neighbouring areas, transport routes and surrounding towns e.g. at the KZN Provincial level.
3	Landscape – The impact could affect all areas generally visible to the naked eye, as well as those areas essentially linked to the site in terms of ecosystem functioning.
2	Local – The impacted area extends slightly further than the actual physical disturbance footprint and could affect the whole, or a measurable portion of adjacent areas. Normally within a radius of 2 km from the site.
1	Site Related – This is an impact within the boundaries of the construction site or the

	development footprint. The loss is considered inconsequential in terms of the spatial context of the relevant environmental or social aspect.
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Magnitude - This provides a qualitative assessment of the severity of a predicted impact. Below are some of the standard terms used in assessment relating to this indicator.

Table 8 - Magnitude

RATING	MAGNITUDE SCALE
7	Total / eliminating – Function or process of the affected environment is altered to the extent that it is permanently changed.
6	Profound / considerate / substantial – Function or process of the affected environment is altered to the extent where it is permanently modified to an extent of temporal cease.
5	Material / important – The affected environment is altered, but function and process continue, albeit in a modified way.
4	Discernible / noticeable – Function or process of the affected environment is altered to the extent where it is temporarily altered, be it in a positive or negative manner.
3	Marginal / slight / minor – The affected environment is altered, but natural function and process continue.
2	Unimportant / inconsequential / indiscernible – The impact temporarily alters the affected environment in such a way that the natural processes or functions are negligibly affected.
1	This is where there will be no impact on the environment.

Duration - This describes the timeline of the predicted impact. Below are some of the standard terms used in assessment relating to duration.

Table 9 - Duration

Rating	DURATION SCALE
7	Long term – Permanent or more than 15 years post decommissioning. The impact remains beyond decommissioning and cannot be negated.
3	Medium term – Lifespan of the project. Reversible between 5 to 15 years post decommissioning.
1	Short term – The impacts will be easily reversible with the adoption of mitigation measures. This will happen during the project lifespan. The impact will either be remedied with mitigation or will be mitigated through natural processes within the project phase i.e. within 0 – 5 years.

Irreplaceability / Loss of resources - Environmental resources cannot always be replaced; once destroyed, some may be lost forever. It may be possible to replace, compensate or reconstruct a lost resource in some cases. The loss of a resource may become more serious later, and the

assessment must take this into account. Below are some of the standard terms used in assessment relating to duration.

Table 10 - Irreplaceability / Loss of resources

RATING	IRREPLACEABILITY / RESOURCE LOSS SCALE
7	Permanent – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, or by artificial means.
5	Long term – The loss of a non-renewable / threatened resource which cannot be renewed / recovered with, or through, natural process in a time span of over 15 years, but can be mitigated by other means.
4	Loss of an ‘at risk’ resource – one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria, but cumulative effects may render such loss as significant.
3	Medium term – The resource can be recovered within the lifespan of the project. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span between 5 and 15 years.
2	Loss of an ‘expendable’ resource - one that is not deemed critical for biodiversity targets, planning goals, community welfare, agricultural production, or other criteria.
1	Short-term – Quickly recoverable. Less than the project lifespan. The resource can be renewed / recovered with mitigation or will be mitigated through natural process in a span shorter than any of the project phases, or in a time span of 0 to 5 years.

Reversibility - The distinction between reversible and irreversible impact is a very important one and the irreversible impacts not susceptible to mitigation can constitute significant impacts in an EIA process. The potential for rehabilitation is the major determinant factor when considering the temporal scale of most predicted impacts. Below are some of the standard terms used in assessment relating to reversibility.

Table 11 - Reversibility

RATING	REVERSIBILITY SCALE
7	Long term – The impact will never be returned to its original or benchmark state. The impact cannot be reversed.
3	Medium term – The impact / effect will be returned to its original or benchmark state through mitigation or natural processes in a span shorter than the lifetime of the project, or in a time span between 5 and 15 years.
1	Short term – The impact / effect will be returned to its original or benchmark state through mitigation or natural processes in a span shorter than any of the phases of the project, or in a time span of 0 to 5 years.

Probability - The assessment of the probability / likelihood of an impact / effect has been undertaken in accordance with ratings and descriptors provided below.

Table 12 - Probability

RATING	PROBABILITY SCALE
1.0	Absolute certainty / will occur
0.9	Never certainty / very high probability
0.7 – 0.8	High probability / to be expected
0.4 – 0.6	Medium probability / strongly anticipated
0.3	Low probability / anticipated
0.2	Possibility
0.0 – 0.1	Remote possibility / unlikely

(vi) The methodology used in identifying and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;

There are no alternative sites, as a result the assessment will focus on this specific site (preferred site). The site visit, and site walk while analyzing and observing the physical environment on the project site. Desktop analysis of the site using google image, map analysis like National Wetlands map & aerial images, SAHRIS heritage programme and South African protected Conservation Areas database (SAPAD). We also used professional judgment, observation on site and past experience.

We have consulted stakeholders and professionals that have been involved on site with regard to the previous industry and tapped on their knowledge, including available literature relating to the site. Several Specialists studies are conducted on site. We have also contacted the local authority eThekweni Municipality in relation to the nearby D'MOSS area, and eThekweni Health in relation to the atmospheric emission license process.

The air quality specialist will employ various models as outlined under (H) below.

(vii) Positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects

Positive impacts of the activity

Geographical

The site is already zoned general Industry and is already surrounded by several heavy industries.

Physical

The location of the site is ideal from the transport network perspective.

Biological

The project is not going to encroach on the nearby D'MOSS area, and unlikely to affect fauna and flora.

Social

The project is coming at the time when the world and South Africa have been affected by the pandemic of Covid 19, with a lot of people losing their jobs and Companies closing their doors.

Economic

The project will contribute to the country's GDP and boost local economic development. The project will create sustainable jobs that will benefit the local people and South Africans.

Heritage and cultural aspects

At face value, there are no heritage objects on the development footprint, however this will have to be confirmed by KZN Amafa and Research Institute. It is critical that any heritage objects be safeguarded in line with the South African National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA) and the KwaZulu-Natal Heritage Act of 2018

Negative impacts of the activity

Geographical

The site is located within the area that is perceived to be playing a role in pollution in the Southern areas of Durban. As much as the process of assessment is going to be thorough in terms of the Environmental impact assessment which includes public participation, coupled by the air quality study and application of atmospheric emission license, there could be a perception, and pre co idea of it being viewed as a bad activity.

Physical

The site is located near the D'MOSS area, and this may create an impression that it is going to impact and encroach on it, despite the confirmation that it is not going to encroach, and all the safeguards and assessments will be conducted on site.

Biological

As highlighted above, there could be fears of encroachment on the nearby D'MOSS area, thus affecting its biodiversity.

Social

There could be fears of the activity affecting the communities through emissions despite the studies that are going to be conducted, including the application for an atmospheric emission license.

Economic

Projects of this nature are at times not seen through the positive eye of jobs and contribution they make to the economy and development of the country, but through the lens of economic profits that are detrimental to the communities, especially if the activity in question has emission element in it. They are viewed as polluting without any safeguards.

Heritage and cultural aspects

There could be fears of the activity affecting heritage and cultural aspects on site.

(viii) *The possible mitigation measures that could be applied and level of residual risk*

Mitigation - In the assessment process the potential to mitigate the negative impacts is determined and rated for each identified impact. The significance of environmental impacts will therefore be assessed considering any proposed mitigation measures.

- Ensuring that whatever emission is produced is within the legally required limits – this will be done through the air quality study and the application for atmospheric emission license which will be done through the licensing authority.
- Reduction of soil erosion by ensuring that there is ground cover and vegetation, and diverting water appropriately to avoid run off.
- Ensuring that the activity does not impact on the neighbouring D'MOSS area and the habitat as such.
- Ensuring that waste is disposed in line with acceptable environmental standards.
- Stormwater Management Plan to ensure proper disposal of water on site.
- Dust suppression by watering the site during site construction phase.
- Ensure compliance with the National Dust Control Regulations and implement a dust management programme which will include monitoring of dust on the fence-line of this Facility during the operational phase.
- Ensuring that noise levels are within legally acceptable levels by adhering to set standards.
- Planting of indigenous trees around the open field that is earmarked for the packaging plant as part of the future expansion.
- The eradication of opportunistic alien plants on site that may take root.
- Implementation of the buffers as may be recommended by the Vegetation Specialist.
- The earthworks must be carried out in accordance with SANS 1200 D.
- Implementation of the EMPr and its recommendations.
- The necessary signage is required on site during both construction and operational phases.
- Stockpiling must be done in line with acceptable environmental standards.

- Location of construction camp must be about 150 metres from any watercourse.
- Concrete mixing must not be done on the soil as to avoid soil contamination.
- Traffic Management has to be done in line with relevant legislation.
- Heritage objects to be handled in line with the recommendations of KwaZulu – Natal Amafa and Research Institute.
- Health and Safety issues to be handled in line with the prescripts of Occupational Health and Safety Act, 1983 and monitored by the Safety Officer on site.
- Social impact (health and well-being).

(ix) The outcome of the site selection matrix

There has been no comparison of sites, as the preferred site is already having buildings that will be used for the proposed cement plant. The proposed plant is going to be located on exactly the same site that was used by Venator Africa (Pty) Ltd. The site is already zoned General Industry. Therefore, there is no site selection matrix applied.

(x) If no alternatives, including alternative locations for the activity were investigated, the motivation for not considering such

There were no alternative sites investigated as highlighted under (ix) above, however there were alternative locations explored in terms of the new plant layout. The new design ensures that there is no encroachment on the D'MOSS area.

It will be uneconomical for the applicant to search for another site and location, whereas the identified site and location is already zoned General Industry same as the zoning for the proposed activity. Moreover, the buildings and infrastructure on site is sound and intact and currently not in use.

The following are distinctive for the site and chosen location:

- The site is already located within the Industrial complex, and zoned General Industry, which is the zone for the same activity that is proposed.
- The activity on this site will provide an opportunity for economic spin offs for the communities, mainly south of Durban which include low-income areas.
- The site has not shown any serious environmental fatal flaws thus far, and has been previously used for a heavier industry than the one that is proposed.
- The proposed site is already well serviced in terms of engineering services.
- The site has a well-established road and rail network, which is ideal for the transportation of raw material.
- The site is located on a rather isolated location within the whole industrial complex, with fewer people walking and travelling in the vicinity.

(xi) A concluding statement indicating the preferred alternatives, including preferred location of the activity

It is deemed desirable to continue with the existing site and location as it is already located within a well serviced, well established Industrial complex. The site is already zoned in line with the proposed activity. The choosing of any new site may lead to the disturbance of the environment to install new infrastructure, yet the current site is already having buildings and infrastructure on it.

The site is located within a well-established road and rail network, and this will facilitate the bringing in of raw materials and the dispatching of the final cement product.

(H) A PLAN OF STUDY FOR UNDERTAKING THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS TO BE UNDERTAKEN, INCLUDING –

NB – IN ADDITION TO THE DETAILS BELOW, WE HAVE ALSO ATTACHED A PLAN OF STUDY FOR AIR QUALITY IMPACT ASSESSMENT, PREPARED BY THE AIR QUALITY SPECIALISTS WORKING ON THE PROJECT – SEE APPENDIX E (i) and (ii). A specialist air quality impact assessment is required as part of the Atmospheric Emission License (AEL) application process, in order to assess the impacts on local air quality emanating from the proposed Facility. This is the same plan that will also be presented to the Emission Licensing Authority as regulated.

The incorporation of reliable data into an air quality assessment is of paramount importance.

(i) A description of the alternatives to be considered and assessed within the preferred site, including the option of not proceeding with the activity

Alternatives within the preferred site

As highlighted in detail above there are no alternatives in terms of sites, however the project has looked at different locations within the property or preferred site and the option of not proceeding with the activity. The ultimate decision was to proceed with the current location that was used by the previous industry, albeit some minor changes in the layout ensuring that the development footprint does not encroach on the D'MOSS area.

This has to be reconfigured to allow for the cement plant. This includes the bringing in of raw material by trucks and rail. The location has also taken into consideration the movement of trucks.

Initially the area behind the cement plant warehouse was identified to accommodate a driveway that will allow trucks not to go in a one-way manner. Based on environmental inputs, the idea has been abandoned in terms of the layout to ensure that the indigenous tree species are avoided at all costs.

It is anticipated that in future there may be a need to expand, and the open field area used as a soccer field is earmarked for the packaging plant. The proponent is mindful of the rezoning process that will have to be done in this regard if this expansion materializes. However, the expansion development footprint will only be 9 000m² out of an open space of 2,2 HA. This is meant to safeguard the remainder of the private open space as a way of enhancing the surrounding D'MOSS area.

No-go option

The no-go option has been considered in the total scheme of things; however, it has been concluded that it will not make much sense. The site in question has been already used by the previous industry which was even heavier than the proposed one. The site is already zoned general Industry, and in line with the zoning for the proposed site. The site is already located within a well-established Industrial Complex with suitable infrastructure.

It will also not make sense not to consider an activity on the site that is currently vacant in terms of production, yet it is already zoned for the purpose. This is even more distinct in the context of the economic recovery plan envisaged by the South African government. The provision of jobs is more pressing in the face of the devastation caused by the Covid 19 pandemic, that has caused the job losses and closing down of businesses.

The proposed activity will contribute immensely to the local economic development and the GDP of the country. The no-go option is not considered appropriate because it will hinder the need to economic recovery post Covid 19 era. Furthermore, the unemployed will lose out in terms of potential job opportunities that are likely to be created by this development. The local small businesses are also likely to benefit during the project construction phase, and without this project they are likely to lose out.

(ii) A description of the aspects to be assessed as part of the environmental impact assessment process;

The key aspects to be assessed include air quality and pollution in the context of the environment in its totality. The project will safeguard the neighbouring D'MOSS area, the habitat and its biodiversity ensuring necessary buffers, and the impact of alien plants that need to be eradicated on site. The project will look at the issues of soil erosion, disposal of water within the site and soil contamination.

The assessment will also look at issues of waste management and noise effect during both construction and operational phases. The assessment will look at the socio - economic impacts of the project. The assessment will also look at the impact of traffic, especially the trucks movement in the context of delivery of raw materials and final cement products during operational phase. The assessment has to look at issues of health and safety, dust, signage, stockpiling location of site and construction camp and concrete mixing on site.

The assessment will look at heritage objects and the buildings on site.

(iii) Aspects to be assessed by specialists

In order to meet the aspects highlighted above, the project will have environmental impact assessment practitioners that will be involved in the managing of the scoping and EIA process, and Specialists that will conduct some of the following identified studies:

- Air Quality Study that will include Baseline study, emission inventories, dispersion modelling and Atmospheric Emission License (AEL) application to be submitted to eThekweni Municipality as a licensing authority.
- Vegetation study.
- Traffic Assessment issues, especially with regard to trucks movement.
- Socio – economic study.
- Geotechnical study.
- Hydrological assessment / Stormwater plan / Watercourse & Wetland delineation
- Noise impact assessment as may be necessary.

(iv) A description of the proposed method of assessing the environmental aspects including aspects to be assessed by specialists

The key aspects will be assessed in the following manner:

The site visit by the environmental team, and site walk while analyzing and observing the physical environment on site. Desktop analysis of the site using google image, map analysis like National Wetlands map & aerial images, SAHRIS heritage programme and South African protected Conservation Areas database (SAPAD). We also used professional judgment, observation on site and past experience.

We have consulted stakeholders that have been involved on site with regard to the previous industry and tapped on their knowledge, including available literature relating to the site. We have also studied literature and discussing with air quality specialists that are part of the project. We have also contacted the local authority eThekweni Municipality in relation to the nearby D'MOSS area, and eThekweni Health in relation to the atmospheric emission license process.

The main specialist will be the one dealing with air quality, because of the nature of the proposed project – WSP Environmental (Pty) Ltd, who will approach the study in the following manner (Source: proposal provided by WSP Environmental (Pty) Ltd):

NB – Please note that some of the following has already been covered in the attached Plan of Study for the air quality specialist – **Appendix E**.

Baseline Assessment

This will contextualise the study area, and include the identification of neighbouring sensitive receptors, including adjacent communities, health care facilities, schools and old age homes (as applicable).

Identification of neighbouring air pollution sources; and assessment of prevailing meteorological conditions using three years of data purchased from the most site representative meteorological station available. Assessment of existing ambient air quality conditions through the analysis of available ambient air quality monitoring data. Review of applicable air quality legislation. Review of the potential health effects associated with atmospheric emissions from the proposed facility.

Emissions inventory

- WSP will develop an emissions inventory based on anticipated site activities.
- Emissions during the construction phase of the project will be assessed qualitatively and recommendations for limiting ambient impacts during the construction phase will be provided.
- The operational emissions inventory will be calculated using internationally accepted emission factors, such as the United States Environmental Protection Agency's (USEPA) AP-42 documentation.
- It is understood that the pollutant of focus will be particulate matter (PM, in its various sizes)
- On completion of the emissions inventory, WSP will submit the inventory to the Client for written approval.

Plan of study (attached as Appendix E)

- In line with the Regulations Regarding Air Dispersion Modelling 2, a Plan of Study has been submitted to eThekweni Municipality for approval of the intended dispersion modelling approach.
- Written approval of the Plan of Study will be sought from eThekweni Municipality before modelling commences.

Dispersion modelling

- To assess the dispersion of pollutants from the proposed facility, WSP propose that the regulatory Level 2 dispersion model, AERMOD, is utilised.
- The AERMOD software is well equipped to simulate the dispersion of emissions from the facility and has the following capabilities:
 - It is a new generation air dispersion model designed for short-range dispersion (<50 km) of airborne pollutants in steady state plumes;
 - It incorporates air dispersion based on boundary layer turbulence structure and scaling, including treatment of both surface and elevated sources and both simple and complex terrain; and
 - It uses hourly sequential meteorological files with pre-processors to generate flow and stability regimes for each hour that cumulatively offer long-term ambient concentrations whilst also capturing short-term peaks.
- WSP consider a Level 2 model sufficient for the assessment, local topographic and meteorological context, and the anticipated modelling domain extent.

Impact Assessment

- On completion of the dispersion modelling, WSP will compile an integrated and detailed air quality impact assessment report.
- The report will assess the impact of PM on the receiving environment through comparison of calculated ambient concentrations with national ambient air quality standards (NAAQS)³.

- The report will include details on the methodological approaches adopted in the assessment, a detailed breakdown of the emissions inventory, analysis of dispersion modelling results in the form of isopleth maps and statistical tables, as well as make recommendations for impact mitigation and monitoring.
- The report will align with the requirements in the *Regulations Regarding Air Dispersion Modelling*⁴.

Atmospheric Emission application license

- The AEL application requires:
 - Registration of the proposed facility online with the South African Atmospheric Emissions Licensing & Inventory Portal (SAAELIP);
 - Collection and collation of all technical information and supporting documentation required to be submitted with the online AEL application;
 - Completion of the AEL application form via the SAAELIP platform;
 - Submission of the completed AEL application form to the Client for final approval before submission to the licensing authority; and
 - Liaison with the licensing authority regarding the status of the AEL application.

(v) A description of the proposed method of assessing duration and significance

The method will entail the assessment of each identified potentially significant impact and risk, inclusive of duration and significance.

- The nature, significance and consequence of the impact and risk;
- The extent and duration of the impact and risk;
- The probability of the impact and risk occurring;
- The degree to which the impact and risk can be reversed;
- The degree to which the impact and risk may cause irreplaceable loss of resources; and
- The degree to which the impact and risk can be avoided, managed or mitigate.

The overall significance of an impact / effect will be ascertained by attributing numerical ratings to each identified impact. The numerical scores obtained for each identified impact will be multiplied by the probability of the impact occurring before and after mitigation. High values will suggest that a predicted impact / effect is more significant, whilst low values will suggest that a predicted impact / effect is less significant.

(vi) An indication of the stages at which the competent authority will be consulted

The competent authority, the KZN Department of Economic Development, Tourism and Environmental Affairs (EDTEA) has been contacted already, and will be contacted throughout the process. The following are some of the contact stages:

- Enquiry that was submitted to EDTEA, confirmed that this activity was triggered in terms of Activity No. 6, Listing Notice 2, the development of facilities or infrastructure for any

process or activity which requires a permit or license or an amended permit or license in terms of national or provincial legislation governing the generation or release of emissions, pollution or effluent.

In this instance, the activity requires an Atmospheric Emission License (AEL). The Licensing Authority in this regard is eThekweni Municipality (Health Unit), and they have been contacted and after checking the project description they confirmed that the project will trigger a Listed Activity cement production in terms of NEM: AQA (sub-category 5.4).

- A pre – application meeting was held with EDTEA, the applicant and EAP on 23 September 2020.
- This scoping report will be submitted to the Competent Authority for approval as contemplated in Regulation 22 of the EIA Regulations, 2014 as amended.
- The Environmental Impact Assessment Report will also be submitted to EDTEA for approval.
- Telephonic engagements with EDTEA as and when necessary.
- Joint site visits when necessary.
- Office visits as and when necessary
- If the Environmental Authorisation is issued, the Competent Authority will be contacted and notified of the date of commencement of construction. EDTEA will be contacted through the monitoring and auditing phases.
- The competent Authority will be informed of the project completion, and closure audit report submitted to it.
- If the Environmental Authorisation is issued, the Competent Authority will be contacted and notified of the date of operation.

(vii) Particulars of the public participation process that will be conducted during the environmental impact assessment process; and

The public participation process has been outlined in detail under **G (ii) above**, save to say that for the environmental impact assessment process the following is further envisaged:

- The environmental impact assessment report (EIAR) will be circulated to all registered interested and affected stakeholders.
- The ward Cllr will be informed of the availability of the EIAR, and a copy sent to her for studying and distribution.
- The advertising will be done as necessary.
- The open day may be held as may be necessary.
- The public participation process will be conducted in full compliance to the directions of the Department of Environment, Forestry & Fisheries (DEFF) dated 5 June 2020 regarding measures to address, prevent and combat the spread of Covid 19.
- The public participation process will take into consideration all applicable health and safety protocols in terms of section 27 (2) of the Disaster Management Act.

(viii) A description of the tasks that will be undertaken as part of the environmental impact assessment process

- Conduct specialist's studies as per (H) (iii) above.
- Incorporation of Specialists Studies to the EIA report as necessary and appropriate.
- License application as necessary e.g. atmospheric emission license that will be conducted by WSP.
- Incorporation of stakeholder comments from the Scoping Phase.
- Continuous engagement with stakeholders.
- Compilation of the Environmental Management Programme incorporating specialists studies and stakeholder's comments.

(ix) Identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored

The significance rating will be provided after detailed assessment. In addition to what is contained under G (viii) above, the following is added, which is a preliminary investigation (which may still change) as part of the scoping exercise:

Table 13

Impact and risk	Significance	Mitigation
Soil erosion	Insignificant	Prevent soil erosion by maintaining the grass cover on site, as well as through the stormwater management plan.
Air pollution / Dust (construction stage)	Significant	Suppression of dust through watering of the site during construction. Wearing of dust masks and protective clothing.
Air pollution / Dust (operational stage)	Significant	Atmospheric Emission License that will specify the pollution minimum standards that will have to be observed by the activity. Compliance to Dust Control Regulations and implementation of the dust management programme which will include monitoring of dust on the fence line of the facility.

		<p>Installation of high efficiency bag filters to collect all dust generated.</p> <p>Conveyors must be enclosed to limit dust emissions.</p> <p>Bag filters will be installed on the top of the packers to collect dust emitted from the packer spouts.</p>
Habitat loss	Insignificant	<p>Maintain the recommended buffer in relation to the area identified by eThekweni Municipality as D'MOSS, as well as watercourses so that the ecosystems can continue to function in an ecologically balanced manner. Planting of tree species on project completion as may be advised by the ECO.</p> <p>Recommendations of the Vegetation Study must be implemented and incorporated onto the EMPr.</p>
Surface water pollution	Insignificant	The project must prevent any materials or construction activities that may pollute the environment and water resources.
Soil contamination	Of low significance, and localized.	No material used during construction and operational phases must be allowed to contaminate the soil.
Stockpiling (construction and operational)	Low significance, and localized.	No stockpiling must take place near any watercourse.

		The stockpiled raw material must be under a covered storage shed into individual stockpiles.
Location of construction camp.	Insignificant	The construction camp must not be located within 150 metres of any watercourse.
Littering / Solid waste	Insignificant	<p>Solid waste must be disposed of at the nearest disposal site, with proof of responsible disposal method whenever requested during the construction phase.</p> <p>Waste will be collected by eThekweni Municipality as a contractual arrangement or by a private service provider during the operational stage.</p> <p>The project in its current format will not store hazardous waste. Hazardous waste defined as waste that poses substantial or potential threat to public health and the environment. This includes waste that tends to ignite, reactive, corrosive and toxic.</p>
Concrete mixing	Insignificant	The mixing of concrete must be done within the bunded area. All spillages must be removed and properly disposed of.
Alien plant species	Insignificant	The programme to eradicate opportunistic alien plants on site will be put in place on project completion. This will be

		done in line with the National Environmental Management: Biodiversity Act & Alien and Invasive Species Regulations.
Noise (construction phase)	Insignificant	Machinery and equipment used during construction phase must be properly serviced.
Noise (operational phase)	Its significance will be assessed.	Noise must be kept within the allowed and permitted levels.
Traffic management (during both construction & operational phases).	Significant	Traffic must be controlled through road signs, leading to the project site. For example, moving trucks sign. During operational phase the traffic must be managed as per the recommendations of traffic authorities and Traffic Engineer.
Heritage resources.	Insignificant.	The site is already transformed, with no obvious heritage objects. Amafa comments will be sought in this regard.
Health and Safety	Significant	Safety officer must be appointed to deal with all safety issues on daily basis during construction. Safety induction must be done on commencement of construction. Safety measures must be put in place, and be in line with OHSA.
Social impact	Significant	Air pollution may have negative impacts in terms of health and well – being of the surrounding communities if in excess of

		<p>legal limits. The emission has to be within legal limits.</p> <p>Positive prospects of jobs and skills.</p>
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(I) AN UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP IN RELATION TO;

- (i) the correctness of the information provided in the report;
- (ii) The inclusion of comments and inputs from stakeholders and Interested &Affected Parties;
and
- (iii) Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties; and

(J) AN UNDERTAKING UNDER OATH OR AFFIRMATION BY THE EAP IN RELATION TO THE LEVEL OF AGREEMENT BETWEEN THE EAP AND INTERESTED AND AFFECTED PARTIES ON THE PLAN OF STUDY FOR UNDERTAKING THE ENVIRONMENTAL IMPACT ASSESSMENT;

I,

confirm that the information provided in the report is correct;

The inclusion of comments and inputs from stakeholders and I&APs is correct;

Any information provided by the EAP to interested and affected parties and any responses by the EAP to comments or inputs made by interested and affected parties; and

In line with (J) above, I further undertake under oath or affirmation in relation to the level of agreement between myself and interested and affected parties on the plan of study for undertaking the environmental impact assessment

Commissioner of oaths:

Rank or Designation of the Commissioner:

Place: Date:

(K) WHERE APPLICABLE, ANY SPECIFIC INFORMATION REQUIRED BY THE COMPETENT AUTHORITY; AND

NONE.

(L) ANY OTHER MATTER REQUIRED IN TERMS OF SECTION 24 (4)(a) AND (b) OF THE ACT

NONE, as all issues relating to organs of state with jurisdiction on site have been covered. Furthermore, all impacts, alternatives, mitigation, option of not implementing an activity, issues of monitoring and assessment thereof have been addressed by the Scoping Report.