



KWAZULU-NATAL  
**AMAFA**  
& RESEARCH INSTITUTE

## APPLICATION FORM J (for Official Use)

Ref/Amafa ID:
File Ref:
EIA no:
Date Received:
Filter Com Recommendation:
Comment date:

### **APPLICATION IN TERMS OF THE SECTION 41 OF THE KWAZULU-NATAL AMAFA AND RESEARCH INSTITUTE ACT (5/2018) AND THE NATIONAL HERITAGE RESOURCES ACT (SECTION 38) FOR COMMENT ON THE PROPOSED DEVELOPMENT OF A SITE**

PLEASE NOTE IT IS AN OFFENCE IN TERMS OF THE KWAZULU-NATAL HERITAGE ACT, 2008 TO MAKE ANY FALSE STATEMENT OR FAIL TO PROVIDE REQUIRED INFORMATION IN THIS APPLICATION ([Detach and Consult the attached guidelines before completing this form](#)) THE ONUS IS ON THE APPLICANT TO ENSURE THAT THE CURRENT APPLICATION FORM IS USED. APPLICATIONS ON NON-COMPLIANT FORMS WILL NOT BE PROCESSED

**ALL APPLICATION FORMS, DEVELOPMENT PROPOSALS, PHOTOGRAPHS, MOTIVATION, AND PROOF OF PAYMENT ARE TO BE UPLOADED TO THE SAHRIS SYSTEM ([www.sahra.org.za](http://www.sahra.org.za)). A hard copy must also be delivered to 195 Langelibalele Street, Pietermaritzburg, 3201 OR posted to Box 2685, Pietermaritzburg, 3200. In the case of a failure of the sahris system the application can be emailed to [archaeology@amafapmb.co.za](mailto:archaeology@amafapmb.co.za) and [bernadetp@amafapmb.co.za](mailto:bernadetp@amafapmb.co.za).**

#### **A. DEVELOPMENT DETAILS**

1. PROJECT TITLE:

Nyanza 80 000 tonnes per annum (tpa) Titanium Dioxide Pigment Plant

KWAZULU-NATAL  
**AMAFA**  
& RESEARCH INSTITUTE

## 2. PROJECT DESCRIPTION:

The Project will produce 80 000 tpa titanium dioxide (TiO<sub>2</sub>) pigment. The expected life of plant is 60 years. Feedstock will be ilmenite (design is based on typical Tellnes ilmenite) and/or conventional sulphatable slag (design is based on typical Richards Bay Mineral slag) and a waste slag from the erstwhile Highveld Steel and Vanadium plant – referred to as Highveld Steel Slag (HSS). Design provision is made for a blend of any proportion of these feedstocks.

The plant will be operated on a 24 hours per day, 365 days per year basis. Considering unplanned production outages and planned maintenance shuts, the design assumption is that plant on-line time will be 85% (310 days per annum). Redundancy provision and emergency power provision is made on all critical abatement equipment to ensure 100% on-line time.

### Process Description

The manufacture of TiO<sub>2</sub> via the sulphate process consists of the manufacture of the pure untreated TiO<sub>2</sub> (referred to as calciner discharge or 'CD') and the de-aggregation and surface treatment of the CD (referred to as 'Finishing')

The key stages in the manufacture of CD through sulphate technology are:

- Milling of the feedstock to the optimal size fraction;
- Digestion of the TiO<sub>2</sub> feedstock with sulfuric acid (H<sub>2</sub>SO<sub>4</sub>);
- Reduction of the ferric iron, Fe<sup>3+</sup> in the titanyl sulfate solution ('black liquor') to Fe<sup>2+</sup> with iron (Fe) if needed;
- Formation of adequate titanium ions (Ti<sup>3+</sup>) in the black liquor by further reduction with Fe if needed;
- Oxidation of excess Ti<sup>3+</sup> in the black liquor if needed;
- Separation of solid impurities from the black liquor;
- Removal of excess Fe from the black liquor and/or removal of excess aluminium from the black liquor and re-concentration of the black liquor (if necessary);
- Preparation of seed crystals ('nuclei') for precipitation in hydrolysis and reutilisation in the calciner;
- Hydrolysis of the titanyl sulfate to form an insoluble hydrous TiO<sub>2</sub> precipitate;
- Washing and bleaching of remaining impurities;
- Conditioning of the hydrous TiO<sub>2</sub> precipitate prior to calcination; and
- Calcination to drive off water and acid and to grow the TiO<sub>2</sub> crystals, yielding pure dry TiO<sub>2</sub>.

The TiO<sub>2</sub> that emerges from the calciner will be de-aggregated, coated with oxides or hydroxides of aluminium, silicon, phosphorous and/or zirconium and then washed, dried and deagglomerated before packing as a final product.

Ancillary process units included in the scope of the Project are:

- scrubbing of digestion and calciner off-gas
- recovery of titanyl sulphate solution from digester solid residues and neutralisation of the digester solid residues
- re-concentration of strong waste acid for recycle to the main process
- neutralisation of remaining waste acid
- dewatering of gypsum
- preparation of the surface treatment and calciner addition chemicals

buffer storage facilities in the main TiO<sub>2</sub> plant for copperas and ammonium aluminium sulphate and handling facilities for loading and dispatch of these.

Other process units included in the scope of the project are:

- a sulphur-burning sulphuric acid plant (also supplying steam to the main TiO<sub>2</sub> plant)
- a water demineralisation plant
- a compressed air plant for plant air and instrument air
- vacuum generation plant
- a lime slaking plant
- water cooling plant(s)
- a steam boiler(s).

3. EXTENT OF THE SITE:	690 000m <sup>2</sup>	69 ha
EXTENT OF THE DEVELOPMENT AREA (m <sup>2</sup> ):	160 000	

<b>GPS CO-ORDINATES:</b> (Decimal format only)			
SOUTH:		EAST:	
Latitude /Longitude	Degrees	Minutes	Seconds
South	28°	44'	16.66"
East	32°	1'	38.00"
South	28°	44'	30.54"
East	32°	2'	01.04"
1:50 000 SHEET no:		1:10 000 SHEET no:	

<b>B. PROPERTY DESCRIPTION:</b>	
Name of property:	Title Deed No.
Erf/Lot/Farm No: 15825 (wetland area not to be developed) 16817 16789 16788 16787 16786	GPS Co-ordinates
Street Address, Suburb, Town: RBIDZ Phase 1F 125 Alumina Allee Alton Richards Bay	
Local Municipality uMhlathuze Local Municipality	District Municipality King Cetshwayo District Municipality
Traditional Authority Area	
Current zoning Noxious Industry and Industrial	Present use

<b>C. DEVELOPMENT TYPE:</b>	
<b>1. DECISION REQUIRED IN TERMS OF SECTION s41(1)</b> (tick the appropriate box/boxes)	
Linear Development/Barrier exceeding 300m in length e.g. road, pipe/power line, trench, canal or wall	
Other similar form of linear development/barrier exceeding 300m in length	
Construction of a bridge or similar structure exceeding 50m in length	
Any development exceeding 5 000m <sup>2</sup> in extent or any other category of development provided for in regulations	✓
Any other activity which would change the character of an area of land or water exceeding 10 000m <sup>2</sup> in extent	✓
Any development involving three or more existing erven or sub-divisions thereof	✓
Any other activity involving three or more existing erven or sub-divisions thereof	✓
Any development or other activity involving three or more existing erven or sub-divisions thereof which have been consolidated within the past 5 years	
Any development or other activity the costs of which will exceed a sum set out in the regulations	
Re-zoning of a site exceeding 10 000m <sup>2</sup>	

**2. DEVELOPMENTS THAT TRIGGER OTHER LEGISLATION (NEMA, ENVIRONMENTAL CONSERVATION ACT, MINERALS ACT, ETC)**

**RESPONSE REQUIRED IN TERMS OF s41(8) (tick the appropriate box/boxes)**

BID		BAR	✓	EIA	✓
EMP	✓	WULA	✓	MPRDA	
OTHER (describe)					

**D. IMPACT ON HERITAGE RESOURCES:**

To your knowledge would the Development impact on any known heritage resources protected in terms of the KZN Amafa and Research Institute Act (5/2018), or is the development located in the vicinity of any of the above? If yes, the Heritage Practitioner must create a site on sahris pinpointing the position of the heritage resource/s discovered.  
(tick the appropriate box/boxes below)

s37 - Structures or part thereof that can reasonably be expected to be over 60 years of age

s38 - Graves of victims of conflict,

s39 - Informal and private burial grounds (traditional graves or graves outside of a formal cemetery e.g. a farm cemetery that are over 60 years of age).

s40 - Battlefield sites , archaeological sites, rock art sites, palaeontological sites, historic fortifications, ruins over 100 years old, meteorite or meteorite impact sites and any objects or ecofacts associated therewith

s42 - Protected areas (is the site within a known protected area?)

s43 - Specially protected heritage resources are listed in Schedule of Heritage Resources

s44 - Heritage Landmarks including the site on which they are situated

s45 - Provincial Landmarks and the site on which they are situated (state owned)

s46 - Graves of members of the Royal Family listed in Schedule of Heritage Resources

s47 - Battlefield site, public monument or memorial listed in the Schedule of Heritage Resources and any public monument defined in the NHRA and protected in terms of Section 37 of the NHRA, & Section 47 of the KZN Amafa and Research Institute Act (5/2018)

s49 - Artefacts, or collections thereof on which Heritage Object status has been conferred

**E. CONTACT DETAILS**

**1. APPLICANT'S DETAILS (OWNER OF PROPERTY)**

NAME Mr Thabane Zulu (CEO of Richard's Bay Industrial Development Zone SOC Ltd.)

POSTAL ADDRESS

Private Bag X1005  
Richard's Bay

POST CODE 3900

TEL (035) 797 2600

FAX/EMAIL Thabane.Zulu@rbdz.co.za

**DECLARATION BY OWNER**I, Thabane Zulu/CEO

(full names of owner/person authorized to sign on behalf of the owner)

undertake strictly to observe the terms, conditions, restrictions, by-laws and directions under which the KZN Amafa and Research Institute may issue the comment to me.)

Signature Place RBay IDZDate 08/12/2022**2. DELEGATED AUTHORITY (The name of the person authorized to act on behalf the applicant where the owner is a company, trust, or institution – Power or Attorney/proof of authorization to be attached)**NAME Mr Thabane Zulu (CEO of Richard's Bay Industrial Development Zone SOC LtdTEL 035) 797 2600FAX/EMAIL Thabane.Zulu@rbidz.co.za**3. DEVELOPER'S DETAILS**

NAME(Company/institution/individual)

Nyanza Light Metals (Pty) Ltd

POSTAL ADDRESS

PostNet, Suite 510/Private Bag X1, Melrose Arch, Melrose North,POST CODE 2076TEL 011 684 1286

FAX

CELL 083 640 7140EMAIL donovan@nyanzametals.comSIGNATURE 

DATE

09/12/2022**4. CONSULTANT'S DETAILS**

NAME(Company/institution/individual)

Ndomupe Masawi (SRK Consulting (Pty) Ltd)POSTAL ADDRESS PostNet Suite #177, Private Bag X20009, Garsfontien, South Africa.POST CODE 0042TEL 012 361 9812

FAX

CELL 076 438 2826EMAIL nmasawi@srk.co.zaSIGNATURE DATE 2022/12/07**F. SUBMISSION FEE: R800.00 (subject to annual increment on the 1 April)**The submission fee is payable to the **KZN Amafa and Research Institute** by bank deposit/internet banking (EFT) and proof of payment must be submitted with the application.**ACCOUNT DETAILS:****ABSA BANK: Branch: ULUNDI Bank Code: 630330**Account in the name of **the KZN Amafa and Research Institute**

Account No. 40-5935-6024

USE SAHRIS ID and SHORT TITLE OF DEVELOPMENT AS REFERENCE

**G. PUBLIC PARTICIPATION:** (Contact details of Interested and Affected Parties Consulted - written opinion to be attached to form and drawings to be signed by I & A P. See Guidelines)  
**PLEASE SEE ATTACHED PROOF OF Public Participation together with the I & A P REGISTER**

Name \_\_\_\_\_  
 Telephone \_\_\_\_\_ Fax/Email \_\_\_\_\_

**H. CHECKLIST OF DOCUMENTATION SUBMITTED**

HARD COPY APPLICATION FORM (COMPLETED & SIGNED BY OWNER, DEVELOPER & CONSULTANT)	
APPLICATION FORM UPLOADED TO SAHRIS	
MOTIVATION	
SITE PHOTOGRAPHS/CASE IMAGES	
1:50 000 MAP & SATELLITE AERIAL VIEW	
KML FILE MAP	
SITE PLAN SHOWING ALL FEATURES & HERITAGE RESOURCES	
DEVELOPMENT PLAN SHOWING ALL FEATURES & HERITAGE RESOURCES SUPERIMPOSED THEREON	
PROOF OF PROFESSIONAL ACCREDITATION (e.g. copy of accreditation card/certificate)	
PROOF OF PUBLIC PARTICIPATION	
ENVIRONMENTAL IMPACT ASSESSMENT	
HERITAGE IMPACT ASSESSMENT	
CONSENT LETTER FROM THE OWNER	
LETTER OF APPOINTMENT OF CONSULTANT	
<b>PROOF OF PAYMENT OF SUBMISSION FEE (EFT/BANK DEP/AMAFA CARD)</b>	



# KWAZULU-NATAL AMAFA AND RESEARCH INSTITUTE

THE KZN PROVINCIAL HERITAGE RESOURCES AUTHORITY  
(accredited in terms of the National Heritage Resources Act)

**GUIDELINES FOR THE PREPARATION OF APPLICATIONS FOR COMMENT FROM THE PROVINCIAL HERITAGE RESOURCES AUTHORITY ON DEVELOPMENT PROPOSALS IN TERMS OF SECTION 41 OF THE KZN AMAFA & RESEARCH INSTITUTE ACT (5 OF 2018) AND THE NATIONAL HERITAGE RESOURCES ACT (SECTION 38).** Please detach from the form before submission

NOTE: The provisions of s38 of the NHRA have been incorporated verbatim into s41 of the **KZN AMAFA & RESEARCH INSTITUTE ACT (5 OF 2018)**.

## APPLICATION FORMS

All applications must be made on the relevant official application form and must be accompanied by the relevant supporting documentation.

- A. DEVELOPMENT DETAILS:** Describe the proposed development and motivate and motivate the need and desirability for such a development. Details must be given of the work to be carried out – do not merely refer to the documents submitted.
- B. PROPERTY:** Include the name of the development where applicable. The FARM NAME is the key information and is used as a tracking device in the filing system. Where development is in an urban area the street address is key and if several street numbers apply to the site, all the numbers must be included.

GPS CO-ORDINATES: The KZN Amafa and Research Institute only accepts GPS co-ordinates in decimal format. Other formats may be provided in addition to the decimal format but not to the exclusion of the decimal format.

- C. DEVELOPMENT TYPE:** development applications are made either in terms of:  
s41(1) – check the list under C 1 – or  
s41(8) – check the list under C 2.
- D. HERITAGE RESOURCES:** Identify any heritage resources uncovered through initial scoping or through the Heritage Impact Assessment. Create a site on the step/page 1 of the application on sahris and pinpoint the positions of the resources on the google map provided. When heritage resources have been found the Institute will require that a Heritage Impact Assessment is carried out by a practitioner registered with the Institute and accredited to carry out such assessments. When appointing the Heritage Practitioner stipulate that the HIA must be uploaded to the application on sahris and that a hard copy must be provided to the Institute.

NB: Section 39 of the KZN Amafa and Research Institute Act (5/2018) has been brought in line with the NHRA and limits the protection of traditional graves to those over 60 years of age.

- E. CONTACT DETAILS:** full contact details of all major players in the development are required.  
**DECLARATION:** The owner must sign the form and any accompanying documentation and must consent to submissions by a third party/agent.
- F. A SUBMISSION FEE** – a service fee determined by the Council of the Institute is payable on submission of all applications. **THE APPLICATION WILL NOT BE REGISTERED AS SUBMITTED IF THE PROOF OF PAYMENT IS NOT ATTACHED. USE THE SAHRIS CASE ID AS THE REFERENCE.**

**G. PUBLIC PARTICIPATION:** WHERE GRAVES ARE PRESENT COMMUNITY CONSULTATION MUST BE CARRIED OUT AND EVERY EFFORT MADE TO LOCATE AND CONSULT THE FAMILIES OF THE DECEASED PRIOR TO SUBMISSION OF THIS APPLICATION.



The applicant will be notified of the level of public participation required and will have to bear the costs thereof. Neighbours, Ward Councillors, and Heritage Groups should be consulted in

the case of demolition/destruction applications. All documentation submitted is retained for record purposes and interested and affected parties may apply to view the documentation.

### **DOCUMENTS REQUIRED IN SUPPORT OF THIS APPLICATION**

- 1. SUPPORTING DOCUMENTATION: Only Heritage Practitioners registered with the Institute may compile the HIA and related supporting documentation. Permits will require their overseeing the work. Where architectural drawings are required, they must be authored by SACAP registered professionals.**
  - 1.1. PHOTOGRAPHS OF EXISTING FEATURES, STRUCTURE/S ARCHAEOLOGICAL REMAINS, GRAVES, ETC AND THEIR SURROUNDINGS:**

Photographs that clearly illustrate the features of the affected site relevant to the application must be submitted.
  - 1.2. SITE PLAN:** The site plan must be drawn in accordance with the approved surveyor's diagram of the site and must show: scale; the north point; the erf/property/farm number of the site; the location of the site and any structures on it in relation to surrounding roads, buildings and other features; existing buildings, structures, and pools on the site (coloured grey or uncoloured); proposed work (coloured red) and buildings or portions of buildings proposed for demolition (in dotted lines); and the extent of the declared area (in the case of a proclaimed property). Heritage resources must be clearly marked on the plan.
  - 1.3. KML MAP FILE AND AERIAL OR SATELLITE VIEWS OF THE SITE** that clearly illustrate the features of the affected site relevant to the application must be submitted.
  - 1.4. 1:50 000 MAP OF THE SITE** that clearly illustrates the features of the affected site relevant to the application must be submitted.
  - 1.5. ENVIRONMENTAL IMPACT ASSESSMENT** where required the EIA must be compiled in accordance with standards set out in regulations under the environmental legislation.
  - 1.6. HERITAGE IMPACT ASSESSMENTS** must be submitted where any Heritage Resources are found. These reports must comply with the standards set out by the South African Heritage Resources Agency (go to [www.sahra.org.za](http://www.sahra.org.za) to download the standards) and may only be compiled by practitioners who have registered their accreditation for this work with the Institute. If the HIA is not submitted with the application, the Institute will notify the applicant of the need to submit an HIA if there is reason to believe that heritage resources will be affected by the development.
- 2. SUBMISSION OF APPLICATIONS:** Application forms can be downloaded from [www.heritagekzn.co.za](http://www.heritagekzn.co.za) – look under the “Permits” tab - download forms – Form J. Electronic submissions must be uploaded to the sahris system operated by the South African Heritage Resources Agency [www.sahra.org.za](http://www.sahra.org.za). The application must also be submitted in hard copy delivered to 195 Langalibalele Street, Pietermaritzburg, 3201 OR posted to Box 2685, Pietermaritzburg, 3200. In the case of a failure of the sahris system the application can be emailed to [archaeology@amafapmb.co.za](mailto:archaeology@amafapmb.co.za) and [bernadetp@amafapmb.co.za](mailto:bernadetp@amafapmb.co.za).

**When submitting on sahris note that you must still check Section 38 under the case type and KZN – Amafa** for the Provincial Heritage Resources Authority.

The applicant is the “owner” and the Assessor is the “Consultant” and the correct fields must be completed.

The Consent Letters allowing a developer to act on behalf of the owner or the Consultant to upload the case to sahris must be placed in the correct boxes which are blocked from public view.

The proof of payment must also be loaded to the designated box to prevent members of the public obtaining banking details, etc from the document.
- 3. PROCESSING OF APPLICATIONS:** applications are processed in the order in which they are received, except during the December/January holiday break. The Institute will receipt the application and alert the applicant to any missing information within 2 weeks of submission. Allow 90 days for processing of complex applications as these may be submitted to external reviewers. Lobbying of external reviewers will disqualify the application. Written responses to

applications will be uploaded to Sahris. Telephonic or e-mails enquiries will not be responded to.

**\*PLEASE NOTE: INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED. Allow 90 days from the receipt of all required documentation**



KWAZULU-NATAL  
**AMAFA**  
& RESEARCH INSTITUTE

# **SITE PHOTOGRAPHS/CASE IMAGES**

# 1:50 000 MAP & SATELLITE AERIAL VIEW

**SITE PLAN SHOWING ALL FEATURES & HERITAGE  
RESOURCES**

**DEVELOPMENT PLAN SHOWING ALL FEATURES &  
HERITAGE RESOURCES SUPERIMPOSED THEREON**  
**N/A: The Project is still in the Scoping Phase**

**PROOF OF PROFESSIONAL ACCREDITATION (e.g. copy of accreditation card/certificate)**



# PROOF OF PUBLIC PARTICIPATION

**ENVIRONMENTAL IMPACT ASSESSMENT**  
**N/A: The Project is still in the Scoping Phase**

## **HERITAGE IMPACT ASSESSMENT**

**The Heritage Impact Assessment Report will follow in  
the EIA Phase**

# CONSENT LETTER FROM THE OWNER

# LETTER OF APPOINTMENT OF CONSULTANT