



AngloAmerican

CORPORATE OFFICE

Anglo Operations Limited

Group Legal - South Africa
45 Main Street
Johannesburg
2001
South Africa

Our ref: CG/Iny/NL/15(1)(1)d – Eskom Ash Dump

22 December 2011

Zitholele Consulting (Pty) Ltd
P O Box 6002
HALFWAY HOUSE
1685

Per fax: 086 676 9950

Dear Sirs

RE: ENVIRONMENTAL IMPACT AND WASTE MANAGEMENT

Attached hereto is the completed document as requested.

Yours faithfully

Chantelle Gerber
Associate-Legal Counsel
Mining and Property Law
T: +27 (0) 11 838 3479
F: +27 (0) 11 838 4608
C: +27 (0)83 234 0145
E: chantelle.gerber@angloamerican.com
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CG/AD/L149

cc: Reynold Mkwazazi - Room 138, 1st Floor, 45 Main

A member of the Anglo American plc group

Anglo Operations Limited

Registered Address: 44 Main Street, Johannesburg 2001. PO Box 61567 Marshalltown 2107 South Africa. T +27 (0)11 638 9111. F +27 (0)11 638 2455
Incorporated in the Republic of South Africa. Registration Number 1821006730/C6.

Company Secretary: D J Alton

Directors: T M F Phaswana (Chairman), G G Gomwe (Zimbabwean), C Goosen (Mrs), N J Mason-Gordon, S Mayet, N B Mbazima (Zambian),
R Mèdon (French), D J Morris, J G Williams

REGISTRASIE- EN KOMMENTAARBLAD Uitbreiding van aswegdoenfasiliteite by die Kusile-kragsstasie Ingevoeg by die kennisgewingsbrief September 2011	OIB Kantoor vir Openbare Deelname Anelle Lötter/Florence Rambuda Zitholele Consulting (Pty) Ltd Posbus 6002, Halfway House, 1685 Tel: (011) 207 207F, 2075 Faks: 086-67F 9950 Epos: alotter@zitholele.co.za of florencer@zitholele.co.za
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Vul asb in en stuur so gou moontlik terug aan die OIB Kantoor vir Openbare Deelname (kyk hierbo)

TITEL	Mnr	VOORNAAM	Hans
VOORLETTERS	JT	VAN	Jansen van Rensburg
ORGANISASIE	Hans van Rensburg Boederij	E-POS	hvkantoor@telkomsa.net
POSADRES	Posbus 273 Bronckhorstspuit		
TEL NO	013 932 1379 082 492 0632	POSKODE	1020
DATUM	30 September 2011	FAKS NO	086 583 5675
Registreer my asb formeel as 'n belanghebbende en geaffekteerde party (B&GP) sodat ek verdere inligting en kennisgewings kan ontvang tydens die Omgewingsimpakbepalingsproses			
			<input checked="" type="checkbox"/> JA <input type="checkbox"/> NEE
Ek ontvang graag my kennisgewings per			<input checked="" type="checkbox"/> Brief (pos) <input checked="" type="checkbox"/> E-pos <input type="checkbox"/> Faks <input type="checkbox"/> Telefoon
Ek wil graag dokumente vir kommentaar soos volg ontvang			<input checked="" type="checkbox"/> Papiereksemplare <input checked="" type="checkbox"/> Per e-pos <input type="checkbox"/> Op CD
Ingevolge die regulasies afgekondig in Goewernmentskennisgewings R. 543 - 546 in Staatskoerant No. 33306 van 18 Junie 2010 (OIB-prosesregulasies) meld ek hieronder enige regstreekse sake-, finansiële, persoonlike of ander belang wat ek by die goedkeuring of weiering van die aansoek het: Ek is oë-eleenaar van die plase, WITKLIP 539 JR			

KOMMENTAAR (Gebruik asb afsonderlike velle indien nodig)

Enige kommentaar wat u in hierdie stadium het:

DIE GEDEELTE WAT IN GEDAGTE IS VIR DIE ONTWIKKELING BEHELS DIE GROOTSTE GEDEELTE VAN MY BOEDERIJ. AKTIWITEITE EN SAL AGU. DIE GEDEELTE WAT OORBLIJ DIT ONECONOMIES MAAK OM DAN TE GAAN MET MY BOEDERIJ.

Versoek asb die volgende van my vriende/bure om vir hierdie projek te registreer:

Dus, ek sal dan nie veldre kan boel nie.
 Kontakpersone: 1) Kobus Joubert - 013 932 1293
 (Thela - 082 388 2595)

DANKIE VIR U BYDRAE

- 2) Hennie Pienaar - 013 932 1297/
082 576 6678
- 3) Charles Le Maitre -
082 880 2077

Environmental Impact Assessment and Waste Management License Application for a proposed extension of ash disposal facilities at Kusile Power Station

DEA Ref No 12/12/20/2412) (NEAS Reference: DEA/EIA/0000514/2011)

Reply sheet to receive the Draft Scoping Report and to attend a public meeting on 15 February 2012

EIA Public Participation Office

Anelle Lötter/Andre Joubert /Florence Rambuda
Zitholele Consulting (Pty) Ltd
P O Box 6002, Halfway House, 1685
Tel: (011) 207 2076/2075/2077
Fax: 086-676-9950
Email: alotter@zitholele.co.za or
Andrej@zitholele.co.za
florence@zitholele.co.za

Please complete by 7 February 2012 and return to the EIA Public Participation Office (as above)

TITLE	Mre	FIRST NAME	Hans
INITIALS	JT	SURNAME	JANSSEN VAN RENSBURG
ORGANISATION	HOR Boederwy	EMAIL	horkantoor@telkomsa.net
POSTAL ADDRESS	POSBUS 273	BHS	
		POSTAL CODE	1020
TEL NO	013 932 1379 082 492 0632	FAX NO	086 583 5675

REGISTRATION TO RECEIVE THE DRAFT SCOPING REPORT AND/OR TO ATTEND THE PUBLIC MEETING

DRAFT SCOPING REPORT

I would like to receive a copy of the Draft Scoping Report (please circle the appropriate block)

Per email	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
CD by mail	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO

PUBLIC MEETING

I would like to attend the public meeting (please circle the appropriate block)

I will attend the Public Meeting (14:00 to 17:00) on Wednesday, 15 February 2012 at El Toro Conference venue	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
I will attend the Public Meeting (18:00 to 20:00) on Wednesday, 15 February 2012 at El Toro Conference venue	<input type="checkbox"/> YES	<input type="checkbox"/> NO

COMMENTS (please use separate sheets if you wish)

Any comments you may have at this stage:

Geen kommentaar op vorige skrywe.

Please ask the following of my colleagues/friends to register as I&APs for this project:

Geen aanbeveling van vorige skrywe.

THANK YOU FOR YOUR CONTRIBUTION

REGISTRASIE- EN KOMMENTAARBLAD

**Uitbreiding van aswegdoenfasiliteite
by die Kusile-kragstasie**

Ingevoeg by die Agtergrondinligtingsdokument

September 2011

OIB

KantoorvirOpenbareDeelname
Anelle Lötter/Florence Rambuda
Zitholele Consulting (Pty) Ltd
Posbus 6002, Halfway House, 1685
Tel: (011) 207 2076/2075
Faks: 086-676-9950
Epos: alotter@zitholele.co.za of
florencer@zitholele.co.za

Vulash in en stuur so goumoontlikterugaan die OIB KantoorvirOpenbareDeelname (kykhierbo)

TITEL	MNR	VOORNAAM	CHRISTIAAN JOHANNES
VOORLETTERS	C. J.	VAN	GERBER
ORGANISASIE	WITKLIP 12	E-POS	ahp@dupreezvanwyk.co.za
POSADRES	Posbus 242, Bronkhorstspruit.		
TEL NO	082 8989834	POSKODE	1020.
DATUM		FAKS NO	013 93 200 79

Registreer my asbformeel as 'n belanghebbende en geaffekteerde party (B&GP)sodatekverdereinligting en kennisgewingskanontvangtydens die Omgewingsimpakbeplanningproses

JA NEE

Ekontvanggraag my kennisgewings per	Brief (pos)
	E-pos <input checked="" type="checkbox"/>
	Faks
	Telefoon
Ekwilgraagdokumentevirkommentaarsoosvolgontvang	Papiereksemlare
	Per e-pos <input checked="" type="checkbox"/>
	Op CD <input checked="" type="checkbox"/>

Ingevolge die regulasies afgekondig in Goewermmentskennisgewings R. 543 - 546 in Staatskoerant No. 33306 van 18 Junie 2010 (OIB-prosesregulasies) meld ek hieronder enige regstreekse sake-, finansiële, persoonlike of ander belang wat ek by die goedkeuring of weiering van die aansoek het:

*Ek en my familie bly en boer op Witklip 12 EN HET OUS 21
DIREKTE FINANSIËLE EN PERSOONLIKE BELANG.*

KOMMENTAAR (Gebruikasbafsonderlikevulleindiennodig)

Enigekommentaarwat u in hierdie stadium het:

- 1) FONTEIN WAT ONTSPRING OP DIE PLAAS RAAK HELLWAT DAMME VAN ANDER BOERE VERDER AF OA. EAGLE'S PRIDE HATCHERY.*
- 2) LAMBONGROND IN GAUTENG IS REEDS MARGINAAL EN OORGRENS SPORTING. HET 'N BESLISDE FINANSIËLE IMPAK OP GAUTENG A.G.V 'N PROJEK IN IMPUMALANGA.*

Versoekasb die volgende van my vriende/bureomvirhierdieprojekteregistreer:

- 1. CHARLES LE MAITRE*
- 2. JAMES AESTON*
- 3. MARTIN LE MAITRE*

DANKIE VIR U BYDRAE

REGISTRASIE- EN KOMMENTAARBLAD Uitbreiding van aswegdoenfasiliteite by die Kusile-kragstasie Ingevoeg by die Agtergrondinligtingsdokument September 2011	OIB KantoorvirOpenbareDeelname Anelle Lötter/Florence Rambuda Zitholele Consulting (Pty) Ltd Posbus 6002, Halfway House, 1685 Tel: (011) 207 2076/2075 Faks: 086-676-9950 Epos: alotter@zitholele.co.za of florencer@zitholele.co.za
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Vul asb in en stuur so goumoontlik terugaan die OIB KantoorvirOpenbareDeelname (kyk hierbo)

TITEL	MNR	VOORNAAM	ANDRIES
VOORLETTERS	A	VAN	VAN VUUREN
ORGANISASIE	MANYATHELA ADVENTURES	E-POS	
POSADRES	POSBUS 5009 CULTURA PARK BRONKHORSTSPRUIT		
TEL NO	072 122 6247	POSKODE	1020
DATUM	24-10-2011	FAKS NO	
Registreer my asbformeel as 'n belanghebbende en geaffekteerde party (B&GP) sodatekverdereinligting en kennisgewingskanontvangtydens die Omgewingsimpakbepalingsproses			<input checked="" type="radio"/> JA <input type="radio"/> NEE
Ekontvanggraag my kennisgewings per			<input type="checkbox"/> Brief (pos) <input checked="" type="checkbox"/> E-pos <input type="checkbox"/> Faks <input type="checkbox"/> Telefoon
Ekwilgraagdokumente vir kommentaars soos volg ontvang			<input checked="" type="checkbox"/> Papierkeemplare <input type="checkbox"/> Per e-pos <input type="checkbox"/> Op CD
Ingevolge die regulasies afgekondig in Goewermentakennisgewings R. 543 - 546 in Staatskoerant No. 33306 van 18 Junie 2010 (OIB-proseerregulasies) meld ek hieronder enige regstreekse sake-, finansiële, persoonlike of ander belang wat ek by die goedkeuring of weiering van die aansoek het: GEEN PLAAS			

KOMMENTAAR (Gebruikasbafsonderlike velle indien nodig)

Enlge kommentaar wat u in hierdie stadium het:

BESOEDELING

Versoek asb die volgende van my vriende/bureomvir hierdie projek te registreer:

TAAIBOS DAIRIES 082 921 9462

DANKIE VIR U BYDRAE

REGISTRASIE- EN KOMMENTAARBLAD

Uitbreiding van aswegdoenfasiliteite by die Kusile-kragstasie

Ingevoeg by die kennisgewingsbrief

September 2011

**OIB Kantoor vir Openbare
Deelname**

 Anelle Lötter/Florence Rambuda
 Zitholele Consulting (Pty) Ltd
 Posbus 6002, Halfway House, 1685
 Tel: (011) 207 2076/2075
 Faks: 086-676-9950
 Epos: alotter@zitholele.co.za of
 florencer@zitholele.co.za

Vul asb in en stuur so gou moontlik terug aan die OIB Kantoor vir Openbare Deelname (kyk hierbo)

TITEL	Mnr.	VOORNAAM	Andries	
VOORLETTERS	A.P.	VAN	Olivier	
ORGANISASIE		E-POS		
POSADRES	Posbus 1014 Bronkhorstspuit 1020			
TEL NO	082872 2469	POSKODE	1020	
DATUM	21:10:2011	FAKS NO	Geen.	
Registreer my asb formeel as 'n belanghebbende en geaffekteerde party (B&GP) sodat ek verdere inligting en kennisgewings kan ontvang tydens die Omgewingsimpakbepalingsproses			<input checked="" type="radio"/> JA	<input type="radio"/> NEE
Ek ontvang graag my kennisgewings per			<input checked="" type="checkbox"/> Brief (pos)	X
			<input type="checkbox"/> E-pos	
			<input type="checkbox"/> Faks	
			<input type="checkbox"/> Telefoon	
Ek wil graag dokumente vir kommentaar soos volg ontvang			<input checked="" type="checkbox"/> Papiereksemplare	X
			<input type="checkbox"/> Per e-pos	
			<input type="checkbox"/> Op CD	
Ingevolge die regulasies afgekondig in Goewermentskennisgewings R. 543 - 546 in Staatskoerant No. 33306 van 18 Junie 2010 (OIB-prosesregulasies) meld ek hieronder enige regstreekse sake-, finansiële, persoonlike of ander belang wat ek by die goedkeuring of weiering van die aansoek het:				
In voorgestelde terrein is aansienlik aan nly plaas Takkalsfontein 528 JR Geel 11				

KOMMENTAAR (Gebruik asb afsonderlike velle indien nodig)

Enige kommentaar wat u in hierdie stadium het:


Voorgestelde area B is 'n aktiewe produksie area en verder sal die beheer sterk wansla vanuit 'n duidelike rigting die oorgewende areas van Takkalsfontein - Nooitgedacht bare nadelig maak.

Versoek asb die volgende van my vriende/bure om vir hierdie projek te registreer:

DANKIE VIR U BYDRAE

REGISTRASIE- EN KOMMENTAARBLAD Uitbreiding van aswegdoenfasiliteite by die Kusile-kragstasie Ingevoeg by die kennisgewingsbrief September 2011	OIB Kantoor vir Openbare Deelname Anelle Lötter/Florence Rambuda Zitholele Consulting (Pty) Ltd Posbus 6002, Halfway House, 1685 Tel: (011) 207 2076/2075 Faks: 086-676-9950 Epos: alotter@zitholele.co.za of florencer@zitholele.co.za
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Vul asb in en stuur so gou moontlik terug aan die OIB Kantoor vir Openbare Deelname (kyk hierbo)

TITEL	Mnr	VOORNAAM	Andreas
VOORLETTERS	A.M	VAN	Moll
ORGANISASIE	Bio-Select	E-POS	andreas@bio-select.com
POSADRES	Posbus 1918, BHS 1020		
TEL NO	0827890663	POSKODE	1020
DATUM	07/10/2011	FAKS NO	013 680 1244
Registreer my asb formeel as 'n belanghebbende on geaffekteerde party (B&GP), sodat ek verdere inligting en kennisgewings kan ontvang tydens die Omgewingsimpakbepalingsproses			<input checked="" type="checkbox"/> JA <input type="checkbox"/> NEE
Ek ontvang graag my kennisgewings per			<input checked="" type="checkbox"/> Brief (POS) <input checked="" type="checkbox"/> Epos <input type="checkbox"/> Faks <input type="checkbox"/> Telefoon
Ek wil graag dokumente vir kommentaar soos volg ontvang			<input type="checkbox"/> Papiereksposblare <input checked="" type="checkbox"/> Per Epos <input type="checkbox"/> Op CD
Ingevolge die regulasies afgekondig in Goewermentskennisgewings R. 543 - 546 in Staatskoerant No. 33306 van 18 Junie 2010 (OIB-prosesregulasies) meld ek hieronder enige regstreekse sake-, finansiële, persoonlike of ander belang wat ek by die goedkeuring of weiering van die aansoek het:			
			

KOMMENTAAR (Gebruik asb afsonderlike velle indien nodig)

Enige kommentaar wat u in hierdie stadium het:

Ek boer met organiese uitvoerbessies op Jakhalsfontein
 JR 528, gedeelte 1&10. Hierdie projek sal die einde
 wees van hierdie ondernemering en my gesin. Hou
 Mpumalanga se as in Mpumalanga.
 Versoek asb die volgende van my vriende/bure om vir hierdie projek te registreer:

DANKIE VIR U BYDRAE

REGISTRASIE- EN KOMMENTAARBLAD Uitbreiding van aswegdoenfasiliteite by die Kusile-kragstasie Ingevoeg by die Agtergrondinligtingsdokument September 2011	OIB KantoorvirOpenbareDeelname Anelle Lötter/Florence Rambuda Zitholele Consulting (Pty) Ltd Posbus 6002, Halfway House, 1685 Tel: (011) 207 2076/2075 Faks: 086-676-9950 Epos: alotter@zitholele.co.za of florencer@zitholele.co.za
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Vul asb in en stuur so goumoontlik terugaan die OIB KantoorvirOpenbareDeelname (kyk hierbo)

TITEL	Mnr.	VOORNAAM	Adriaan
VOORLETTERS	A.W.	VAN	Loots
ORGANISASIE	Gala Boerdery	E-POS	adriaanloots@gmail.com
POSADRES	Posbus 2102, Bronkhorstspuit		
TEL NO	0796972753	POSKODE	1020
DATUM	12/10/11	FAKS NO	—
Registreer my asb formeel as 'n belanghebbende en geaffekteerde party (B&GP) sodat ek verdere inligting en kennisgewings kan ontvang tydens die Omgewingsimpakbeoordelingsproses			<input checked="" type="checkbox"/> JA <input type="checkbox"/> NEE
Ek ontvang graag my kennisgewings per			<input checked="" type="checkbox"/> Brief (pos) <input checked="" type="checkbox"/> E-pos <input type="checkbox"/> Faks <input type="checkbox"/> Telefoon
Ek wil graag dokumente vir kommentaar soos volg ontvang			<input type="checkbox"/> Papiereksemplare <input checked="" type="checkbox"/> Per e-pos <input type="checkbox"/> Op CD
Ingevolge die regulasies afgekondig in Goewermentskennisgewings R. 543 - 546 in Staatskoerant No. 33306 van 18 Junie 2010 (OIB-prosesregulasies) meld ek hieronder enige regstreekse sake-, finansiële, persoonlike of ander belang wat ek by die goedkeuring of weiering van die aansoek het: N. U. T.			

KOMMENTAAR (Gebruikasbafsonderlike velle indien nodig)

Enige kommentaar wat u in hierdie stadium het:

1) My plaas wat direk Noord van die beplande fasiliteit B geleë is, kry sy water vanaf die watertafel noord van die eiendom asook die Jakhalsfontein (Ged 31 van die plaas Jakhalsfontein 528 JR.

Versoek asb die volgende van my vriende/bureomvir hierdie projek te registreer:

Jan Ehlers. 084 6021 246

Roelf van Rensburg. 083 250 3846

DANKIE VIR U BYDRAE

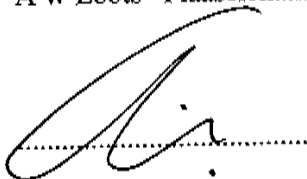
Uitbreiding van aswegdoenfasiliteite by die Kusile- Kragstasie

Kommentaar vervolg : A W Loots t/a Gala Boerdery

2. Let asb daarop dat die Plaas Jakhalsfontein se registrasie nommer verkeerd op die kaart aangedui word, dit moet wees Jakhalsfontein 528 JR en nie 258 JR nie.
3. As groente produsent lewer ek tans Groente aan die omgewing en produseer organiese groente vir verskeie besighede in Bronkhorstspuit en omgewing asook vir markte binne 'n radius van 120 km. Die groente wat geproduseer word is van hoogstaande gehalte en daarom is die boerdery afhanklik van kwaliteit water. Die water word voorsien uit boorgate wat onder die Witrand le en die Jakhalsfontein wat sy oorsprong in die beplande Gebied B het. Daar word ook groente gelewer vir Woolworths wat van hoogstaande gehalte moet wees en wat van goeie water afhanklik is.
4. Die Infrastruktuur wat opgerig is, bestaan uit Nethuise en daar is tans ses groot nethuise waarin groente geproduseer word, die vervangingswaarde van hierdie nethuise beloop ongeveer 2 miljoen rand en kan nie geskuif word nie.
5. Werksverskaffing : Daar word tans werk verskaf aan die omgewing se plaaslike inwoners en veral vrouens wat werkloos was, indien die asfasiliteit noord van die plaas gebou word sal dit 'n negatiewe invloed op die lewenskwaliteit van alle mense in die omgewing he en indien die boerdery gestaak moet word sal dit weerkloosheid bevorder.
6. Dreinerings van water uit die Witrand , noord van die plaas Jakhalsfontein geskied deur sand/leemgrond en dreinerings geskied direk uit die Gebied B wat voorgestel word.
7. Die vleilandgebiede en sponsgebiede noord van beplande gebied B sal direk negatief geraak word. Hierdie dreineringsstelsel voer ook water na die Loskopdam wat 'n primere besproeiings gebied is en waterbesoedeling sal 'n baie negatiewe invloed he.
8. Daar is verskeie kleinwild en diere wat direk afhanklik is van die sponsgebiede en sal baie negatief geraak word. Onder andere kom brulpaddas in hierdie vleigebiede voor.
9. Die heersende windrigting en reën kom uit die gebied Noord van Jakhalsfontein 528 JR en lugbesoedeling sal 'n baie negatiewe invloed op die omgewing he, en 'n direkte invloed op die produksie van groente.
10. In kort gestel sal die totale boerdery negatief deur hierdie fasiliteit geraak word indien die keuse op terrein B val en sal die hele boerdery gestaak moet word as gevolg hiervan.

Slot: My vertroue is dat voorgestelde gebied B die grootste negatiewe invloed op die omgewing sal he.

A W Loots Plaaseienaar Ged van ged 31 van die plaas Jakhalsfontein 528 JR



Our Reference: WvR/HVR2/0001
Your Reference: Anelle Lotter
Date: 31 October 2011
Per: e-mail
Number of Pages:

ZITHOLELE CONSULTING
MIDRAND

Dear Anelle,

OUR CLIENT: HANS VAN RENSBURG BOERDERY CC

RE: ENVIRONMENTAL IMPACT ASSESSMENT: PROPOSED SITE "B"

With regard to the above proposed site for the establishment of an ash disposal facility, on the farm Witklip 539, Jakhalsfontein 258 and Nooitgedacht 525, as well as the proposed conveyor corridor over various farms including Bossemanskraal 538 JR (the site marked as "Site B" on your map), we would like to make the following comments on behalf of our client, who owns the farm Witklip 539 JR and parts of the farm Bossemanskraal 538 JR.

Please take note that these comments are based on our initial assessment of the situation and, as additional information comes to hand, we may expand on our arguments set out herein.

1. Provincial integration

We would like to point out that the proposed site "B" is in Gauteng, whereas the power station is being built in Mpumalanga. Apart from the obvious administrative challenges that this cross-border operation may face, we also believe that your consultation process as proposed, will not comply with Government Notice R.543 of June 2010, Chapter 2. In the Background Information Document of September 2011, mention is made only of the relevant government departments in Mpumalanga, for instance the Mpumalanga Department of Economic Development, Environment and Tourism. No mention is made of the same authority in Gauteng.

We believe that, especially in the light of the serious economic impact this facility will have on agriculture and the environment in Gauteng, as will be discussed in more

detail later, failure to consult with the relevant departments in Gauteng, will render the process defective and therefore invalid.

2. Impact on agriculture

2.1 The farm Witklip

The entire proposed site "B" is situated on prime agricultural land, affecting approximately 250 hectares of irrigated land. Currently crops such as corn, potatoes and peas are produced under irrigation. Apart from the area directly affected, the whole farming business of our client will be ruined as the farm is integrated and the remainder of the farm can not be sustained independently from that part of it. Crops on that land but also on the rest of the farm are irrigated from dams whose water quality will no doubt be affected by the ash.

2.2 The farm Bossemanskraal

Immediately adjacent to, and approximately 1,5 km from the proposed site on the farm Bossemanskraal, my client has a broiler facility where approximately 1,75 million chickens are reared every year. We are concerned about the effect the ash may have on the health of the chickens and also on the quality of the product and the safety to consumers.

2.2 The Conveyor Corridor area

The area earmarked for the conveyor is also agricultural land. Although it may not affect our client directly we are aware of many farmers who may be adversely affected, among which is a large-scale pig farm.

2.3 The farm Groenfontein

One of the major players in the chicken industry in Gauteng, namely Eagles Pride, has one of its' major hatcheries as well as about 36 broiler houses on the property immediately adjacent to the proposed site. They have informed us that they are busy conducting their own environmental impact assessment through their agents and will give their comments in due course.

Although we are not authorised to give an opinion on their behalf, we are aware of a number of reasons why the ash will negatively impact their facility, and possibly to the extent that it may have to close down entirely. These reasons shall also apply, to a large extent, to the chicken facility on the farm Bossemanskraal, belonging to our client.

3. Financial implications

Apart from the obvious financial implications for our client and for the other farmers mentioned in section 2 above, the proposed site "B" is, as mentioned, situated on prime and licensed irrigated land. It will be on, or directly affect, approximately 250 hectares of this high-value land, the value of which is approximately R80,000 (Eighty Thousand Rands) per hectare.

Apart from this there is the cost of the corridor, which, though we have no estimate of the amount, must be substantial. Apart from the capital cost, it will incur substantial monthly running costs including health and safety costs and security.

4. Impact on the environment

4.1 Immediate environment

In relation to the other proposed sites, we believe the impact on the environment would be greater as the proposed area is surrounded by dams and streams. The ash would inevitably find its way into these streams and dams, polluting not only the immediate area but also the area downstream from the affected area. It would in our opinion probably affect the quality of drinking water not to mention the living conditions of the communities nearby.

4.2 The Kungwini (Bronkhorstspuit) Dam

This dam provides drinking water to the town of Bronkhorstspuit but also to a large part of Pretoria. Although the dam is not adjacent to the facility it is nearby and we are concerned of the effect that a 40 to 60m high ash heap may have on the dam, especially in windy conditions. The dam is only 6,3 kilometres from the proposed site.

5. Impact on employment

Irrigated crops in general provide higher employment than non-irrigated crops and land used for grazing. For crops like potatoes, temporary labour is often used in the harvesting season and for some of these labourers this is their only source of income.

Although the ash disposal facility will probably create some employment, it will adversely affect not only these farm workers but also the many people employed by the various chicken facilities in the area.

6. Conclusion

Although we did not have access to information about the other proposed sites for the ash disposal facility, it is evident that the cost of this facility will be substantially higher than that of the other proposed sites. This conclusion is based both on the high value of the land on which the site is located, and on the fact that a corridor will have to be created and maintained if this site is chosen, as is evident from your map. This site is the furthest from the power station and that alone indicates a much higher operating cost than, say, site "A" and "C" which is right next to the site. This should be a major concern as the project already seems to be more costly than anticipated. We hope that a study will be done to calculate the additional cost over the lifespan of the power station, should this site be chosen, and that this will be taken into account when deciding on the viability of site "B". To us, this site simply does not make economic sense.

Furthermore we are concerned about the impact on the local farming community, and especially the irrigation and chicken component thereof. Gauteng has relatively little irrigation land and food production is paramount to the survival of the country. It is, in our opinion, even more important than the provision of electricity.

Lastly, it would be disastrous if the Gauteng water supply is affected by the proposed facility, and this alone should be reason enough to abandon this site as a possible choice.

We hope that you found our contribution useful. We shall appreciate it if you could keep us abreast with developments so that we can advise our client appropriately.

Kind regards,

VAN RENSBURG JORDAAN
& OLIVIER ATTORNEYS
Per: Willem van Rensburg

REGISTRATION AND COMMENT SHEET
Environmental Impact Assessment and
Waste Management License Application for the
proposed extension of the ash disposal facility at
Kusile Power Station

Inserted in the Background Information Document
 September 2011

EIA Public Participation Office

Anelle Lötter/Florence Rambuda
 Zitholele Consulting (Pty) Ltd
 P O Box 6002, Halfway House, 1685
 Tel: (011) 207 2076/2075
 Fax: 086-676-9950
 Email: alotter@zitholele.co.za or
 florencer@zitholele.co.za

Please complete and return to the EIA Public Participation Office (as above) before 31 October 2011

TITLE	DR	FIRST NAME	JOHAN
INITIALS	AJ	SURNAME	PIENAAR
ORGANISATION / FARM NAME	ALCEDO	EMAIL	seekoei@wweb.co.za
POSTAL ADDRESS	P.O. Box 8269	DIE HEUWEL 1042	
TEL NO	0832261415	POSTAL CODE	1042
DATE	25 OKT 2011	FAX NO	0866720102

Please formally register me as an interested and affected party (I&AP) so that I may receive further information and notifications during the Environmental Impact Assessment process

YES NO

I would like my notifications by

Letter (mail)

Email

Fax

Telephone

I would like to receive documents for comment as follows

By email

On CD

In terms of Government Notice R.543 - 548 of June 2010 (EIA process regulations) I disclose below any direct business, financial, personal or other interest that I may have in the approval or refusal of the application:

FARMING

COMMENTS (please use separate sheets if you wish)

Any comments you may have at this stage:

.....

.....

.....

.....

.....

Please ask the following of my colleagues/friends/neighbours to register for this project:

.....

.....

THANK YOU FOR YOUR CONTRIBUTION

**Comments
to
Focus Group Meeting for New Site F
Kusile Power Station 60 Year Ash Waste Disposal Facility.**

**Submitted to A Joubert & W Kok
(Zitholele Consulting (Pty) Ltd)**

**Prepared by
Dr JA Meyer
Appointed Consultant for TOPIGS SA (Pty) Ltd**

Key Statement

Following consideration of the draft scoping report, presentations made and discussions held at the meeting on the 20th of July 2012 the key statement noted below is arrived at. Supporting statements appear thereafter in sections 1 and 2.

The location of the proposed site F occupies a significant portion of the TOPIGS SA farm (portions 9 & 10 of Bossemanskraal).

The nature of the TOPIGS production system in terms of animal location, handling, health management and biosecurity does not permit the farm to operate on a partial basis or with close proximity to an ash dump.

The waste handling management system of TOPIGS also requires sufficient land surface area for the disposal of animal effluent.

TOPIGS SA is also in the process of expanding its operations.

TOPIGS SA does therefore not foresee the possibility to continue operations without incurring significant or total impairment with the advent of the proposed site F.

Concerns also exist for the other sites as they may impact on the catchment area, with surface and groundwater concerns in addition to the air quality issues raised previously.

1. Background Information

Please refer to the previous comments submitted on the draft Scoping Report submitted on 24/02/2012 regarding key concern detail as the comments raised therein remain applicable to the new Site F and possible combinations with this and various other potential sites.

Only the key issues are briefly noted in this response with some additional aspects emanating from the presentations and discussions from the Focus Group Meeting held at Kusile Wilge Offices on 20 July 2012.

2. Comments and Concerns

2.1

As was noted by the stakeholders and affected land owners present at the meeting referred to above the primary mechanism of protection for interested and affected parties remains a combination of:

- A commitment on behalf of Eskom/Kusile to monitor the relevant constituents and parameters that may impact on the environment and affected parties.
- An agreement or undertaking on behalf of Eskom/Kusile to adhere to standards set for upper limits of pollution for the relevant sources applicable to the construction, operation and maintenance of the proposed ash waste disposal site/s.
- The implementation of environmental management plans that offer sufficient protection to the current land uses.
- Provision of all monitoring data within a reasonable time-frame to the interested and affected parties.
- Regular engagement with the interested and affected parties.
 - It is proposed that this take the form of an Environmental Monitoring Committee similar to that currently in operation by Kusile Power Station.
 - However, as these meetings already provide many specialist reports relating to the construction (and future operation) of the power station itself and do not necessarily relate specifically to the Ash Disposal Facility/s it is proposed that a separate forum be established to focus on the Ash Disposal Facility/s.

2.2

A key concern noted in the initial comments submitted remains that there appears to be an **on-going adjustment to scope of waste disposal facility or facilities required:**

- The initial projections failed in forming a reasonable estimate of the required ash dump facility size and scope and it was previously argued that it was unclear how the Draft Scoping Process would prevent the same set of scenario circumstances from occurring again (as verbally explained for the 10 year ash dump).
- This has now occurred as predicted by the inclusion of yet another potential site and possible use of a combination of sites (as presented on 20 July 2012).
- The fact that more reasons have presented themselves since the initial draft scoping report warranting the inclusion of another site (site F) suggests that landowners have a valid concern that additional sites may yet again be included at later stages with a similar set of reasons put forward to motivate for yet another set of waste disposal requirements.
- This implies that landowners are potentially expected to continually re-evaluate the challenges that may impose themselves on their environment.
- These landowners should have the certainty to plan their own development/expansions/ land use programmes, yet this is clearly very hard to do given the high degree of uncertainty that exists regarding the true requirement for Kusile Power Station.

- The request is thus that Eskom/Kusile not delay the process unnecessarily but commit with scientifically defensible motivation the true capacity and site requirements and that the selection and proposal be put forward for the necessary authorisations.

- It was noted previously that this should have been completed to a far greater degree of certainty when the initial authorization was granted for the location of the Kusile Power Station.

- Whilst this problem may not necessarily relate to the actions/decision making responsibilities of Eskom/Kusile Power Station, and may be significantly influenced by relevant authorities involved in the processes, it should not be at the cost of current existing landowners and activities in the area.

2.3

Whilst the issue of air quality and dust suppression is noted in the draft scoping report and during the presentations the specialists have all admitted to the fact that despite the mitigation measures that may be put in place some impact from dust and ash-particle fallout will occur.

It was noted by the specialists that this currently occurs at Kendal ash disposal site.

This is a major concern for not only public health but the agricultural production activities currently underway by the landowners potentially affected.

This affects animal health directly by sensitive pulmonary exposure pathways and related respiratory and subsequent systemic adverse effects, and indirectly by grazing quality. Crop production may obviously also be adversely affected by fallout, product quality and long-term soil effects.

It is proposed that this aspect needs to be addressed more fully and comprehensively by a workshop/specialist/stakeholder interaction where these issues and the issues noted below are dealt with:

- National Ambient Air Quality Standards are established (NEM: Act 34 of 2004), with section 2.3 on Ambient air quality measurement requirements stating that the assessment of **all** ambient pollutant concentrations shall be conducted in terms of the relevant sections of the National Framework for Air Quality Management. Section 3 on National Ambient Air Quality Standards addresses SO₂, NO₂, Particulate matter, ozone, benzene, lead and carbon monoxide but **monitoring needs to include** a comprehensive list of potentially hazardous constituents related to coal, combustion thereof, storage of combustion products and related activities, including transport of both coal and combustion products. Additional key elements include:
 - trace elements in FGD byproduct (e.g. arsenic, selenium and mercury)
 - trace elements captured by fly ash and coarse ash with consequent significant environmental concerns as many are reported to be carcinogenic, toxic and potential endocrine disruptors.
 - The key carcinogenic elements most frequently cited include arsenic, cadmium, nickel and zinc, whilst toxicity concerns are most often reported for selenium and mercury.
 - Potentially hazardous trace elements associated with fly ash include:
 - Arsenic; Aluminium; Antimony; Barium; Beryllium; Bromide; Cobalt; Chromium; Copper; Iron; Lanthanum; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Silicon; Strontium; Tungsten; Uranium; Vanadium.
 - Macro elements include Fluoride, Sulphur and Nitrogen. Other potential hazards include PAHs and VOCs.

- According to studies published regarding health impacts associated with coal-fired power plants and disposal of coal combustion products concern exists for both air quality and water quality impacts. Numerous environmental studies also observe hazardous substances in a variety of exposure media, from soil to aquatic organisms utilized for human consumption. Public health studies cite 84 separate hazardous air pollutants to be associated with coal-fired power plants. Given the sensitivity of the catchment involved for all the sites in terms of wetlands and surface water, and the reliance on groundwater by many of the affected landowners, **water quality impacts need to be monitored** for the same constituents noted above for air quality.
- In addition, as noted in the previous comments submitted, concerns regarding Turbidity, Suspended Solids, COD, Ammonia and microbiological indicator organisms are also valid due to the impacts for construction activities and stormwater runoff. These should thus also be monitored to assess environmental impact on a continuous basis as it is understood that the construction of the ash disposal facility or facilities will not be a single event but rather an ongoing process as storage requirements increase over time.

2.4

Some of the Key Concerns noted for the Draft Scoping Report that remain applicable include:

Nowhere in the Draft Scoping Report is specific reference to these constituents noted, and although it may be argued that they are included by implication, it is argued that in order for meaningful public participation and acceptable EIA terms of reference to be formulated, they should appear prominently in the report with clear assurances that they will be established in terms of baseline values, potential hazardous waste streams and monitored accordingly. Failure to do this transparently may result in various environmental and water licenses and authorizations to be granted without specific reference to the primary pollutants relevant.

It is argued that any water used in the process of transporting, placing and storage of the waste streams (fly ash and coarse ash) should form a significant and critical part of the Draft Scoping Report and be included therein as part of the environment and subsequent EIA issues.

Monitoring descriptions must be detailed for storm water drainage and monitoring boreholes, listing at the very least those prohibited discharges typically used for Special Limits by DWA.

Clearer indications should be given regarding the handling of waste from human effluent and other hazardous wastes associated with the construction phase, both of the ash dump and conveyor systems. It is already noted by Kusile that Phola Sewage plant cannot cope with the current load, yet Kusile will show a significant increase in staff entering the site per day over time (increase from 8500 currently to over 10000 by 2013 – EMC data). It is vital that any additional construction activities be managed with due regard for the existing impacts and subsequent sensitivities of the receiving environment.

2.5

Although not directly detailed but nonetheless relevant the issue of the disposal of gypsum from Kusile Power Station remains uncertain. Clarity regarding the use of the co-disposal site currently available and impacts thereof on the proposed sites is required as is the future handling requirements thereof.

2.6

General

The sources, pathway and receptor approach is fundamental to the assessment of hazards and risks and accepted world-wide, and implied in the relevant NEMA and NWA Acts.

Observation in terms of sampling, analytical determination and transparent reporting, of the relevant potentially hazardous constituents should be included for all these aspects noted in the points above (waste stream and other possible sources; pathways as relevant, e.g. air, soil, water, plant; for relevant receptor types).

Comments to Draft Scoping Report for Kusile Power Station 60 Year Ash Waste Disposal Facility.

Submitted to A Joubert (Zitholele Consulting (Pty) Ltd)

**Prepared by Dr JA Meyer
Appointed Consultant for TOPIGS SA (Pty) Ltd**

1. Background Information and Key Concern

In the Schedule of Government Notice No. 32816 (24 Dec 2009) the National Ambient Air Quality Standards are established (NEM: Act 34 of 2004), with section 2.3 on Ambient air quality measurement requirements stating that the assessment of all ambient pollutant concentrations shall be conducted in terms of the relevant sections of the National Framework for Air Quality Management. Section 3 on National Ambient Air Quality Standards addresses SO₂, NO₂, Particulate matter, ozone, benzene, lead and carbon monoxide.

Although the Kusile Power Station is to use FGD to reduce many of these hazardous coal combustion products (specifically the SO₂ and NO₂) concern still exists for list of potentially hazardous constituents related to coal, combustion thereof, storage of combustion products and related activities, including transport of both coal and combustion products.

It is widely published that concern for trace elements in FGD byproduct (e.g. arsenic, selenium and mercury) limits the utilization of FGD byproduct and that the release of FGD byproduct is a barrier impacting utilization thereof.

It is also widely reported in the literature that trace elements may be captured by fly ash and coarse ash with consequent significant environmental concerns as many are reported to be carcinogenic, toxic and potential endocrine disruptors.

The key carcinogenic elements most frequently cited include arsenic, cadmium, nickel and zinc, whilst toxicity concerns are most often reported for selenium and mercury.

The scientific literature generally reports potentially hazardous trace elements associated with fly ash to be:

Arsenic
Aluminium
Antimony
Barium
Beryllium
Bromide
Cobalt
Chromium
Copper
Iron
Lanthanum
Lead
Manganese
Mercury
Molybdenum
Nickel
Selenium
Silicon
Strontium
Tungsten
Uranium
Vanadium

In addition many macro elements are cited such as Fluoride, Sulphur and Nitrogen. Other potential hazards include PAHs and VOCs.

Although many technologies to improve emissions quality exist and may be applicable to Kusile Power Station these do not totally remove the hazards and concern for hazardous constituents still exists.

In some cases the removal of hazards from air in an attempt to improve the air quality and reduce air emissions may result in a higher non-airborne hazardous waste requiring disposal.

According to studies published regarding health impacts associated with coal-fired power plants and disposal of coal combustion products concern exists for both air quality and water quality impacts. Numerous environmental studies also observe hazardous substances in a variety of exposure media, from soil to aquatic organisms utilized for human consumption. Public health studies cite 84 separate hazardous air pollutants to be associated with coal-fired power plants.

There is thus a wealth of information in the scientific literature where the environmental aspects of trace elements in coal and coal combustion products (including fly ash) are reviewed and researched.

Critically, it cannot be assumed that Kusile Power Station will automatically monitor the relevant pollutants as the current EMC process omits obvious elements relevant to establishing baseline concentrations that may be adversely affected or impacted by coal-fired power stations.

As noted above, trace elements described in FGD byproducts also include recognized potentially hazardous elements such as arsenic, selenium and mercury. Studies note that disposal of the ash may be accompanied by dissolution of calcium that may lower the pH and calcium concentration in the leachate facilitating the release of arsenic and mercury, which may be argued to represent a greater environmental hazard.

It is thus argued that these constituents are known, internationally published and cited, and should be specifically included in any EIA process for the relevant sources, pathways and receptors.

Key Concern:

Nowhere in the Draft Scoping Report is specific reference to these constituents noted, and although it may be argued that they are included by implication, it is argued that in order for meaningful public participation and acceptable EIA terms of reference to be formulated, they should appear prominently in the report with clear assurances that they will be established in terms of baseline values, potential hazardous waste streams and monitored accordingly.

Failure to do this transparently may result in various environmental and water licenses and authorizations to be granted without specific reference to the primary pollutants relevant.

2. Draft Scoping Report (DEA Reference Number: 12/12/20/2412)

The report states under point 2.1 that:

In terms of Section 24 of the Constitution:

“Everyone has the right

ii) to an environment that is not harmful to their wealth or well-being, and

iii) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measure that

- prevent pollution and ecological degradation;

- secure ecologically sustainable development and use of natural resources.”

Within the relevant legal framework it may be noted that pollution control and waste management form an integral part of sustainable development, with a principle of using utmost caution when permission is granted for new developments. Environmental impact assessments form a critical aspect of the process.

In section 2.5 it is noted that any WULs that may be required in terms of the NWA will be addressed separately as part of the overall Integrated Water Use Licensing Process for the Kusile Power Station and will not be addressed by authorization process of this EIA.

It is argued that any water used in the process of transporting, placing and storage of the waste streams (fly ash and coarse ash) should form a significant and critical part of the Draft Scoping Report and be included therein as part of the environment and subsequent EIA issues.

3. Description of waste volumes and densities

Section 3.2.3 describes the waste streams in Table 4. Although some reasons were offered verbally at the public meeting on 15/02/2012 at El Toro (Kendall) it remains unclear how the calculations for the approval of Kusile Power Station Ash Dump could be so underestimated to the point that the current 10 year Ash Dump Facility is only capable of handling 16 % of the waste stream envisaged.

Although the calculations for Table 4 state a volume of ash produced at 75% of the waste stream it is assumed this is meant to read of the "potential" waste stream. Despite the preferred approach (see point 1 above) being one that is conservative and one that should thus err on the higher risk side, this is not performed.

If the initial projections failed in forming a reasonable estimate of the required ash sump facility size and scope it is unclear how the Draft Scoping Process accommodates the same set of scenario circumstances from occurring again (as verbally explained for the 10 year ash dump).

Should the WUL and other EIA restrictions be placed (apparently key reasons for the initial ash dump being inadequate) again in a manner to yield the same outcome, namely that the 60 year ash dump is also insufficient, then the Draft Scoping Report will not be applicable to the Kusile Power Station waste stream relevant, and may run the risk of having yet another additional waste stream burden that will require yet another similar process.

It is argued that for the initial authorizations and licenses (specifically WULs) to be valid they should not misrepresent the actual waste stream specifics and that this Draft Scoping Report may be taken as an indication that the current authorizations and licenses were based on misleading calculations and thus require amendments or new compliance notices.

4. Groundwater & other water quality issues

Section 3.4.6 does note some detail regarding storm water drainage and monitoring boreholes, but no monitoring description is provided.

Section 6 lists "Issues Identified to date", and notes impacts to surface water features and air quality amongst other, but nowhere is groundwater listed.

Section 7 "Receiving Environment" also lists Surface Water (7.5) but no groundwater or subterranean water impacts are mentioned anywhere.

It is argued that this should have formed a key part of data collection (7.5.1 – no reference to groundwater) as the area contains numerous groundwater abstraction points for both Domestic and Agricultural Water Use (Livestock and Irrigation).

Section 8 "Potential Environmental and Social Impacts" does however list groundwater in Table 13, yet in Section 9 "Plan of Study for EIA" under 9.2, no water quality specialist is mentioned, neither is groundwater specifically listed. Whilst "surface water assessment" and "geo-hydrology and hydrology assessment" do appear in 9.2 and the following terms of reference issues do mention "water sampling and analysis"; "potential impact to baseline conditions"; and "inter-connectedness i.e surface water groundwater" it is argued that water quality of both surface and groundwater must specifically be investigated from a water quality assessment of all the recognized constituents relevant to the water uses applicable and to the relevant waste stream.

The same argument applies to the air quality assessment terms of reference with the specific issues of air quality (descriptive and appropriately determined) for health hazards to both public health, animals and plants (pastures & crops).

It is argued that groundwater should be elevated in terms of prominence in the Draft Scoping Report as a key issue that will receive appropriate attention, including groundwater quality in terms of baseline conditions, potential hazardous contamination and monitoring of relevant and appropriate constituents to ensure no adverse impact.

5. Human effluent and construction related waste

No mention is made of handling the waste stream from human effluent and other hazardous wastes associated with the construction phase, both of the ash dump and conveyor systems.

No indication is given of the number of people involved and assurances to prevent contamination of the environment (including wetlands, surface and groundwater) by their waste and construction-related hazards.

It is argued that this should form part of the EIA process as construction can be assumed to be a process requiring a significant amount of time and people.

6. Summary statement

The US EPA notes an increase in sites classified as High Potential Hazard with reference to Coal Combustion Residues and the scientific literature (peer-reviewed journals) dealing with coal combustion products, byproducts and related waste, continue to note a range of environmental concerns affecting a wide range of receptor types, including aquatic, human and animal.

To date, key critical data gaps exist in the Kusile EMC Monitoring reports, with no meaningful response to requests for specific constituents (pollutants and hazardous substances) to be monitored to establish current air quality, groundwater quality or surface water quality.

It is thus a concern that failure to have the list noted under point 1 included in the EIA process will render those affected by the proposed ash dump open to the same lack of monitoring data which would effectively prevent an assessment of impact.

The sources, pathway and receptor approach is fundamental to the assessment of hazards and risks and accepted world-wide, and implied in the relevant NEMA and NWA Acts.

Observation in terms of sampling, analytical determination and transparent reporting, of the relevant potentially hazardous constituents should be included for all these aspects (waste stream and other possible sources; pathways as relevant, e.g. air, soil, water, plant; for relevant receptor types).



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Section:	Open Space Management Section	Date:	20 February 2012

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South Africa

Attention: Konrad Kruger
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Dear Sir/Madam,

DRAFT SCOPING REPORT FOR THE PROPOSED EXTENSION OF THE ASH DISPOSAL FACILITY AT KUSILE POWER STATION, BRONKHORSPRUIT

Your Report dated 18 January 2012 refers,

1. INTRODUCTION

The Agriculture and Environmental Management Department (the Department) has considered the Draft Scoping Report dated 18 January 2012 in respect of the abovementioned application. The Draft Scoping Report is submitted to the Environmental Management Division of the City of Tshwane, hereafter referred to as 'the City', as a commenting authority as required in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2010. The application is made in terms of the National Environmental Management: Waste Act No. 58 of 2008 (NEMA: WA) GN 718 of 3 July 2009.

2. PROJECT LOCATION AND DESCRIPTION

Zitholele has been appointed to undertake the Environmental Impact Assessment (EIA) and Waste Management Licence (WML) application as required by the National Environmental Management Act ([NEMA] Act No 107 of 1998, as amended 2010) and the National Environmental Management: Waste Act ([NEM:WA] Act No 59 of 2008) for the proposed construction and operation of the project.

Kusile Power Station is located approximately 20 km from Bronkhorstspuit in the Mpumalanga province (see Figure 1) and is a coal fire power station currently under construction by Eskom. The power station will employ dry ashing for the disposal of its ash, and currently has an approved ash disposal facility in place. Due to additional abatement technology and changes in coal ash percentage this facility will not be adequate and an additional facility will be required.

It is envisaged that the Kusile 60 year Ash Disposal Facility will include the following components:

- A dry disposal facility of ~1500 ha (including some associated infrastructure)
- A conveyor belt for the transportation of ash from the power station to the ash disposal site.
- A single waste stream comprised of combined bottom ash and fly-ash.
- Services including electricity and water supply in the form of power lines, pipelines and associated infrastructure.
- The construction of the new and /or expansion of existing storm water management infrastructure and
- Access and maintenance roads to and from the site and associated infrastructure such as culverts and channels.

The activity entails undertaking the following listed activity in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) and the Environmental Impact Assessment Regulations, 2010.

- **GNR 545 June 2010 Activity 6:** *The construction of facilities or infrastructure for the bulk transportation of dangerous goods – (i) in gas form, outside an industrial complex, using pipelines, exceeding 1000 metres in length, with a throughput capacity of more than 700 tons per day; (ii) in liquid form, outside an industrial complex, using pipelines, exceeding 1000 metres in length, with a throughput capacity more than 50 cubic metres per day; or (iii) in solid form, outside an industrial complex, using funiculars or conveyors with a through put capacity of more than 50 tons day.*
- **GNR 545 June 2010 Activity 15:** *Physical alteration of undeveloped, vacant or derelict land for residential, retail, commercial, recreational, industrial or institutional use where the total area to be transformed is 20 hectares or more.*
- **GNR 544 June 2010 Activity 12:** *The construction of facilities or infrastructure for the off-stream storage of water, including dams and reservoirs, with a combined capacity of 50 000 cubic metres or more, unless such storage falls within the ambit of activity 19 of GNR 545.*
- **GNR 544 June 2010 Activity 22:** *The construction of a road, outside urban areas, (i) with a reserve wider than 13, 5 meters or, (ii) where no reserve exists where the road is wider than 8 metres, or (iii) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 of GNR 545 of 2010.*
- **GNR 544 June 2010 Activity 24:** *The transformation of land bigger than 1000 square metres in size, to residential, retail, commercial, industrial or institutional use, where, at the time of the coming into effect of this Schedule such land was zoned open space, conservation or had an equivalent zoning.*
- **GNR 544 June 2010 Activity 29:** *The expansion of facilities for the generation of electricity where: (i) the electricity output will be increased by 10 megawatts or more, excluding where such expansion takes place on the original development footprint; or (ii) regardless the increased output of the facility, the development footprint will be expanded by 1 hectare or more.*
- **GNR 544 June 2010 Activity 47:** *The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre - (i) where the existing reserve is wider than 13,5 meters; or (ii) where no reserve exists, where the existing road is wider than 8 metres – excluding widening or lengthening occurring inside urban areas.*

The activities applied for are in terms of the National Environmental Management: Waste Act, 2008, GN 718 of 3 July 2009,

Category B

- **Activity 2:** The re-use and recycling of hazardous waste.
- **Activity 5:** The treatment of hazardous waste using any form of treatment regardless of the size or capacity of such a facility to treat such waste.
- **Activity 9:** the disposal of any waste quantity of hazardous waste to land.
- **Activity 11:** The construction of facilities or activities listed in Category B of this schedule.

3. KEY FACTORS INFORMING THE COMMENTS

In making comments in respect of the proposed Activity the Department has taken, *inter alia*, the following into consideration:

- a) The information contained in the Draft Scoping Report as submitted by Zitholele Consulting and received by the Department on 18 January 2012.
- b) Information obtained from the Section's information base including *inter alia*:
 - Geographic Information System (GIS); and
 - Gauteng Open Space Plan (GOSP).
- c) Compliance with applicable Municipal, Provincial, and National Policies and Guidelines including:
 - The National Environmental Management Act 1998 (Act 107 of 1998) (NEMA): its decision-making principles and Environmental Impact Assessment Regulations;
 - The Tshwane Integrated Environmental Policy (TIEP); and

4. DISCUSSION

In reviewing the application the Department made the following findings:

- a) According to the GIS information available the following open space typologies influence the proposed development:
 - **A River and associated wetlands.** Rivers and wetlands are considered as the most important elements in the provisioning of environmental goods and services, the protection of biodiversity, endangered species and ecological systems as well as eco-based activity. Rivers and wetlands therefore must be conserved.
 - **A Ridge.** Ridges are essential in the provisioning of environmental goods and services, the protection of biodiversity, endangered species and ecological systems, as well as eco-based activity. Class 1 and 2 Ridges are predominantly ecologically pristine and must be conserved. Class 3 and 4 Ridges have been predominantly transformed by human intervention, but remain valuable and need to be retained and rehabilitated where possible as ecological and spatial linkages.
- b) The report indicated that after a rigorous site selection process four sites (Areas A – B and G) were identified as feasible alternatives (Appendix G refer).

- c) The report indicated that a comparative assessment of these four site alternatives will be undertaken during the impact assessment phase to inform the selection of a preferred alternative.
- d) The report indicated that the study area displays warm summers and cold winters typical of Highveld climate. The region experience frequency frost, with mean frost days of 41 days. In addition to frost the area is prone to hail storms during summer time. Winds are usually light to moderate, with the prevailing wind direction north-westerly during the summer and easterly during winter.
- e) The report indicated that the geology in the area is fairly complex and none of the potential sites presents are founded on completely homogenous conditions. The main rock types found in the region sandstone, dolerite, granite, norite, quartzite, tillite and shale.
- f) The report indicated that the soils in the region form a typical Highveld plinthic catena with shallow soils on the crests of slopes, deeper sandy apedal soils on the slopes and soils with some plinthic clay layers.
- g) The report indicated that the topography of the region is gently undulating to moderately undulating landscape of the Highveld plateau. Some small scattered wetlands and pans occur in the area, rocky outcrops and ridges also form part significant landscape features in the area.
- h) The report indicated that study area falls within the B20D and B20F catchments. The main drainage feature of the area is the Wilge River which drains northwards. The Bronkhorstspruit and Saalboomspruit are two main rivers in the vicinity all of which northwards towards the Loskop Dam. Several tributaries are also found in the area including the Klipfonteinspruit, Saalboomspruit and several unnamed streams .In addition to the streams several dams/wetlands/pans can also be found in the region.
- i) The report indicated that the area is fairly rural and sparsely populated; housing is typically comprised of farmers' homestead and farm worker housing. Other land uses associated with rural communities were also observed during the site visit and through interpretation of maps, including: community schools, general dealers and shops, farm houses and worker accommodation. At present small scale coal mining and quarrying is undertaken in the area, as well as the construction activities associated with the Kusile Power Station.
- j) The report indicated that the biodiversity rating for bulk of the site is rated from highly significant to least concern and no natural habitat remaining. From the data it is indicated that there is a potential data for red data plant species as well as avifauna to occur in the region.
- k) The report indicated that according to the South African Biodiversity Institute, the study area falls within the Grassland Biome, where most of the country's maize production occurs. The study area comprises of the Rand Highveld Grassland, Eastern Highveld Grassland and Eastern Temperature Freshwater Wetlands vegetation units as classified by Mucina and Rutherford.
- l) The report indicated that the following infrastructure types are found in the study area:
 - Roads and highways.
 - Railways.
 - Power lines and
 - Future infrastructures.
- m) The report indicated that the following specialist studies will be conducted in the EIA phase:
 - Ash Classification.
 - Facility Design and Topographical Survey.
 - Terrestrial Ecological Assessment (fauna and Flora).
 - Avi-fauna Assessment.
 - Heritage Impact Assessment.

- Social Impact Assessment.
- Surface Water Assessment and Wetlands Delineation.
- Geo-hydrology and hydrology Assessment.
- Traffic Assessment.
- Air Quality Assessment.
- Noise Assessment.
- Aquatic Ecology Assessment.
- Soils and Land Capability Assessment and
- Visual Impact Assessment.

5. RECOMMENDATIONS

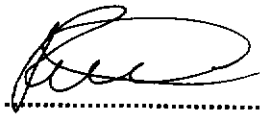
The Department recommends that the following issues be taken into consideration during the EIA phase of the project:

- a) Measures should be put in place to ensure that no nuisance by way of noise, dust, and smoke are caused to the public and surrounding environment during site preparation, and during operation of the activity. These measures should form part of the EMP.
- b) An Emergency/Fire Response Plan approved by a qualified risk consultant must be included in the EIA report.
- c) The applicant must take note of the applications of the Air Quality Act, Act 39 of 2004 under the National Environmental Management Act and follow the requirements thereof.
- d) A detailed storm water management plan must be compiled that ensures that storm water generated on site is discharged in such a way that the receiving environment is not adversely impacted upon. This plan should form part of the EMP.
- e) It is the responsibility of the applicant to comply with the Water-use legislation and apply for water-use licences and authorisation from Department of Water Affairs according to the Water Act where necessary.
- f) Adequate Stormwater Management should be implemented as part of the proposed activity to prevent erosion and sedimentation of the surrounding water resources:
 - Sheet runoff from access roads should be curtailed; and
 - Runoff from exposed surfaces should be slowed down by strategic placement of berms.
- g) During construction, erosion berms should be installed to prevent gully formation. The following points should serve to guide the placement of erosion berms:
 - Where the track has slope of less than 2%, berms every 50m must be installed;
 - Where the track slopes between 2% and 10%, berms every 25m must be installed;
 - Where track slopes between 10% and 15%, berms every 20m must be installed; and
 - Where the track has slope greater than 15%, berms every 10m must be installed.
- h) All areas affected by the proposed activity must be rehabilitated immediately after completion of the proposed activity. The following should be included within the rehabilitation method and indicated within the EMP:
 - All areas of disturbed and compacted soils need to be re-profiled and compaction alleviated;
 - Disturbed areas must be re-seeded with a combination of different indigenous grass species;
 - Rehabilitation shall be done to a coverage of at least 80% indigenous species of the rehabilitated area; and
 - Ongoing removal of alien vegetation from the area must take place at least 3 months **after** the completion of the structures to prevent the uncontrollable recruitment of species.

6. CONCLUSION

The Department recommends that issues highlighted above be taken into consideration during the EIA phase of the project.

Yours faithfully



22/02/2012

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Mr Livhuwani Siphuma Date
EXECUTIVE DIRECTOR: ENVIRONMENTAL MANAGEMENT DIVISION
Letter signed by: Rudzani Mukheli
Designation: Deputy Director: Open Space Management Section

CC	Gauteng Department of Agriculture and Rural Development	Attn:	Mr. Teboho Leku	Tel: (011)355 1394 Fax: 086 606 1197
CC	Department of Environmental Affairs	Attn:	Ms Millicent Solomons	Tel: (012) 310 1852 Fax: 012 320 7539

Environmental Impact Assessment and Waste Management License Application for a proposed extension of ash disposal facilities at Kusile Power Station

DEA Ref No 12/12/20/2412) (NEAS Reference: DEA/EIA/0000514/2011)

Reply sheet to receive the Draft Scoping Report and to attend a public meeting on 15 February 2012

EIA Public Participation Office

Anelle Lötter/Andre Joubert /Florence Rambuda
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Andrej@zitholele.co.za
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Please complete by 7 February 2012 and return to the EIA Public Participation Office (as above)

TITLE		FIRST NAME	Anglo Operations Limited
INITIALS		SURNAME	Represented by Chantelle Gerber
ORGANISATION		EMAIL	chantelle.gerber@angloamericain.com
POSTAL ADDRESS	P.O. Box Private Bag 1, Marshalltown 2107		
		POSTAL CODE	2107
TEL NO	(011) 638 5479	FAX NO	(011) 638 5691

REGISTRATION TO RECEIVE THE DRAFT SCOPING REPORT AND/OR TO ATTEND THE PUBLIC MEETING

DRAFT SCOPING REPORT		
I would like to receive a copy of the Draft Scoping Report (please circle the appropriate block)		
Per email	By both please	<input checked="" type="radio"/> YES <input type="radio"/> NO
CD by mail		<input checked="" type="radio"/> YES <input type="radio"/> NO
PUBLIC MEETING		
I would like to attend the public meeting (please circle the appropriate block)		
I will attend the Public Meeting (14:00 to 17:00) on Wednesday, 15 February 2012 at El Toro Conference venue		<input checked="" type="radio"/> YES <input type="radio"/> NO
I will attend the Public Meeting (18:00 to 20:00) on Wednesday, 15 February 2012 at El Toro Conference venue		<input checked="" type="radio"/> YES <input type="radio"/> NO

COMMENTS (please use separate sheets if you wish)

Any comments you may have at this stage:

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Please ask the following of my colleagues/friends to register as I&APs for this project:

Cindy Smith : cindy.smith@angloamericain.com

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THANK YOU FOR YOUR CONTRIBUTION