MEETING NOTES

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Job Title	Proposed Installation of Sulphur Dioxide Abatement Equipment at Polokwane Smelter
Project Number	31101
Date	19 May 2017
Time	12:00 – 14:00
Venue	Capricorn District Municipality
Subject	Proposed Installation of Sulphur Dioxide Abatement Equipment at Polokwane Smelter – Capricorn District Municipality
Client	Anglo American Platinum Limited
Present	See Attached Attendance Register (**Appendix A**)
Apologies	None
Distribution	As per the Attendance Register

Action

1.0 WELCOME AND INTRODUCTIONS

1.1 Anri Scheepers thanked the Capricorn District Municipality (CDM) for the opportunity to meet with them to discuss the Proposed Installation of Sulphur Dioxide Abatement Equipment at Polokwane Smelter.

1.2 A round of introductions was done, including:

- CDM – Modjadji Rangwato and Theo van Rooyen
- Anglo American Platinum Limited – Munei Ramovha, Kgangelo Mukhufi, Nishi Haripursad, Pierre Malan, Adriaan Venter and Quintin van Rooyen
- WSP Environmental (Pty) Ltd (WSP) – Anri Scheepers

1.3 Anri Scheepers mentioned that the presentation (**Appendix B**) would be attached to the minutes together with the attendance register (**Appendix A**).

2.0 PROJECT BACKGROUND

2.1 Anglo American Platinum Limited (Anglo) owns and operates the Polokwane Smelter, which is located off the R37 to Burgersfort on Portions 6 and 49 of the farm Palmietfontein 24KS. The Polokwane Smelter is an existing metallurgical industrial furnace where sulphide ores are smelted.

2.2 The National Environmental Management Air Quality Act (No. 39 of 2004) (NEM:AQA) requires that furnaces at metallurgical industries be operated with efficient SO_2 abatement systems by 2015, however Polokwane Smelter has been given an extension until 2020. In order to comply with new South African legislation, and associated more stringent emission standards, an SO_2 abatement system must be installed at the Polokwane Smelter.

2.3 The proposed strategy to reduce SO_2 to achieve the Minimum Emission Standards (MES) is the installation of a Wet Gas Sulphuric Acid (WSA) Plant that will convert the SO_2 contained in the off-gas into commercial-grade concentrated sulphuric acid (H_2SO_4). The

	exhaust from the WSA plant (containing reduced SO_2 concentrations) will be vented into the atmosphere, and the commercial grade sulphuric acid will be temporarily stored before being despatched into the commercial market.	
3.0	**ATMOSPHERIC EMISSIONS LICENCE RENEWAL**	
3.1	The existing Polokwane Smelter Atmospheric Emissions Licence (AEL) is being renewed and it was agreed that conditions for the SO_2 Abatement Plant will be contained therein.	CDM
3.2	It was also agreed that an additional application does not need to be submitted.	
4.0	**PLAN OF STUDY**	
4.1	MR requested that a plan of study as per the Modelling regulations be submitted.	WSP
4.2	Subsequent to the meeting the Plan of Study was submitted.	
5.0	**PUBLIC CONSULTATION**	
5.1	It was agreed that community meetings will be held as part of the Environmental Authorisation process.	WSP

Appendix A – Attendance Register

ATTENDANCE RECORD

Meeting Title: Proposed Installation of Sulphur Dioxide Abatement Equipment at Polokwane Smelter - Capricorn District Municipality
Venue: Capricorn District Municipality
Date: 19 May 2017

Name	Company Name	Signature
Murei Ramovha	Polokwane Smelter	
Kgaugelo Mukhufi	Polokwane Smelter	
Anri Scheepers	WSP	
Modjadji Rangwato	CAPRICORN DISTRICT MUNICIPALITY	
Nishi Hariparsad	Anglo American	
Pierre Malan	AAP	
Adriaan Venter	AAP - PMC	
Theo van Rooyen	CSM	
Quintin v. Rooyen	A.A.P Polokwane Smelter	

Appendix B - Presentation

Proposed Installation of Sulphur Dioxide Abatement Equipment at Polokwane Smelter

Anglo American Platinum Limited

19 May 2017
Capricorn District Municipality

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AGENDA

1. Welcome and Introduction
2. Role Players
3. Project Location
4. Project Background
5. Project Description
6. Alternatives
7. Legislative Requirements
8. Specialist Studies
9. Comments Received
10. Proposed Schedule
11. Questions and Discussions

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WELCOME AND INTRODUCTION

Competent Authority

Limpopo Department: Economic Development, Environment and Tourism – Environmental Authorisation (EA)

Capricorn District Municipality – Atmospheric Emissions Licence (AEL)

Commenting Authorities

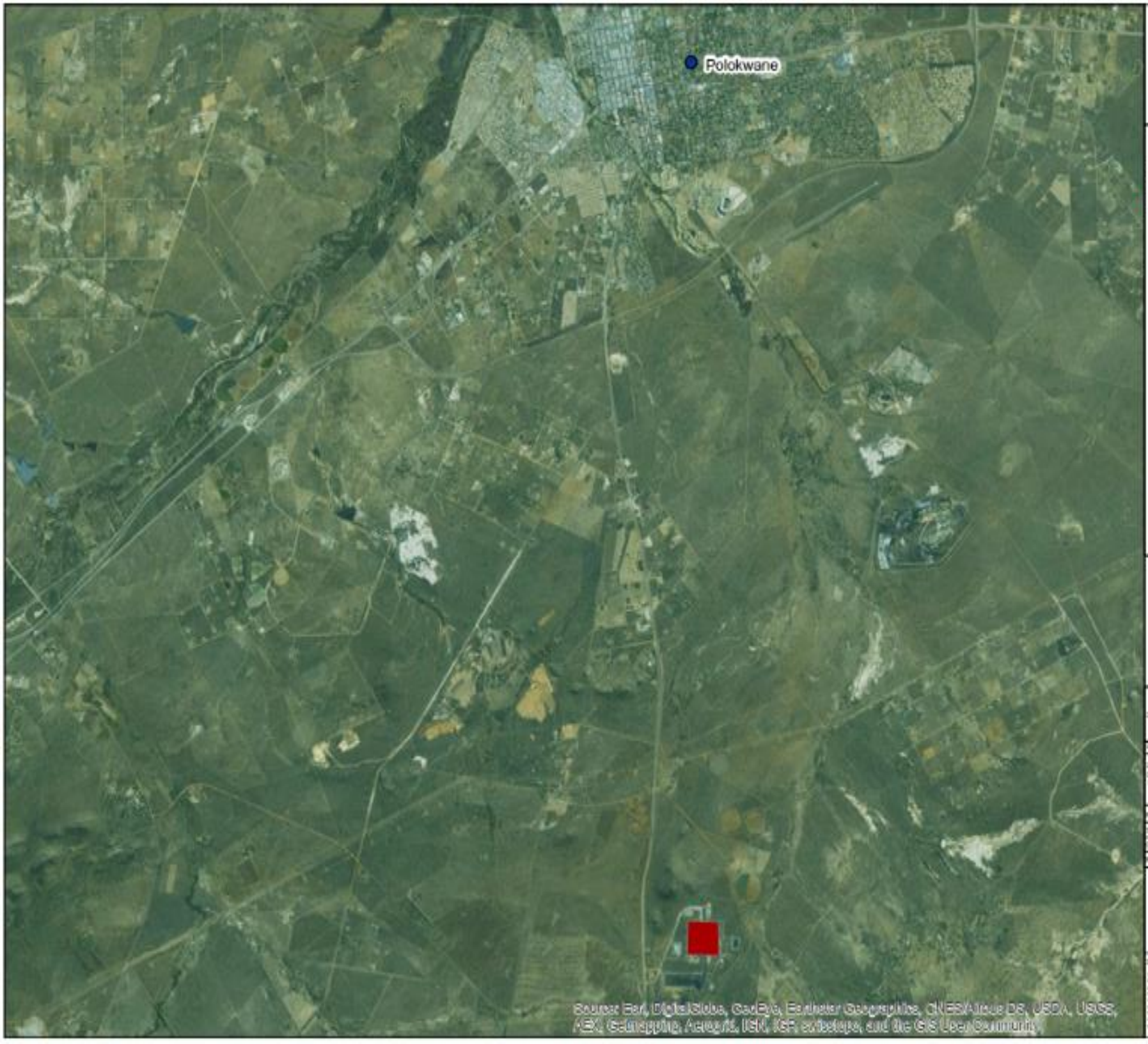
Department of Water and Sanitation

Applicant

Anglo American Platinum Limited

Environmental Assessment Practitioner

WSP | Parsons Brinckerhoff, Environment & Energy, Africa



ANGLO AMERICAN PLATINUM LIMITED

POLOKWANE SMELTER LOCATION

Legend

Polokwane Smelter

N

Metres

DATA SOURCE: ARC GIS 10.2.2

PROJECTION: WGS 25 HARTEBEESPOEL 1994

PROJECT TITLE: PROPOSED INSTALLATION OF SULPHUR DIOXIDE ABATEMENT EQUIPMENT AT ANGLO AMERICAN PLATINUM LIMITED POLOKWANE SMELTER

PROJECT NO: 31102

SCALE: 1:50 000 AT A4 | DATE: 7 OCTOBER 2015

DRAWN BY: ANRI ECKHERDRS

REVIEWED BY: NADIA SIBIDI

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DISCLAIMER

The information on this figure was derived from various digital databases available to WSP Environmental (Pty) Ltd. All information is provided "as is" and it must be acknowledged that data, information and maps are variable and it is constant task of maintenance, correction and update. WSP Environmental (Pty) Ltd cannot accept any responsibility for errors, omissions or variations in positional accuracy which may have directly or indirectly resulted from the information in this figure. There are no warranties, expressed or implied, as to the use of the information, including the warranty of merchantability or fitness for a particular purpose. Modification of any errors will be appreciated.


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R37
© 2016 AfriGIS (Pty) Ltd.
Image © 2016 DigitalGlobe
Google Earth
Tour Guide
2001
Imagery Date: 9/9/2016 24°01'46.08" S 29°28'07.22" E elev 1420 m eye alt 3.75 km

PROJECT BACKGROUND

SO_2 postponement & related appeal

Government notice of Minimum Emission Standards (MES) are published in the Government Gazette: 1 April 2010, then amended for Parliamentary Portfolio Review, and finally revised 22 November 2013

MES: SO_2 for existing facility: 3500mg/Nm³

MES: SO_2 for new/all facility: 1200mg/Nm³

Despite already achieving ~90% abatement (through furnace matte converting at ACP), ask for postponement on achieving site SO_2 limits for 2015. Commit to legal compliance targeting 2020 limit of **1200 mg/Nm³**

20 Feb 2015: Postponement granted as from 1 April 2015 on regulatory limits of 30 000mg/Nm³ vs a requested 57 000mg/Nm³.

AAP lodge an appeal against interim limit of 30 000 mg/Nm³ vs a requested 57 000mg/Nm³

Appeal has been dismissed - AAP initiate legal process to get an interim relief order and to institute **judicial review proceedings**

A "novel" technical solution for SO_2 abatement and control will be developed that produces "useful" acid instead of another solid waste.

Compliance date of 1 April 2020.

SO_2 Compliance requirements	Polokwane Smelter
Pre-2015 AEL condition	2500 mg/Nm³
1 April 2015 MES requirement	3500 mg/Nm³
1 April 2015 – 31 March 2020 postponement limit	30 000 mg/Nm³ (requested 57 000 mg/Nm³)
1 April 2020 MES requirement (require abatement)	1200 mg/Nm³

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PROJECT DESCRIPTION

- Electric Furnace Primary Gas Cleaning (Existing)
- Secondary Gas Cleaning (new additional cleaning)
- WSA Acid Plant
- Effluent Treatment Plant (401m^3/day)
- Acid Concentrating Plant
- Acid Plant Cooling Water
- Dangerous Goods Storage and Handling
  - Acid – 1 200m^3
  - LPG – 68m^3
- Water Usage and Storage
  - Required - 869m^3/day
  - Storage – 3 338m^3
- Roads

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ALTERNATIVES

- **Location – None**
- **Type of activity – None**
- **Design or Layout of Activity**
  - Contractor facilities
  - Operational
  - Construction Access
- **Technology**
- **Operational Aspects – None**
- **No-Go**
  - Legal non-compliance

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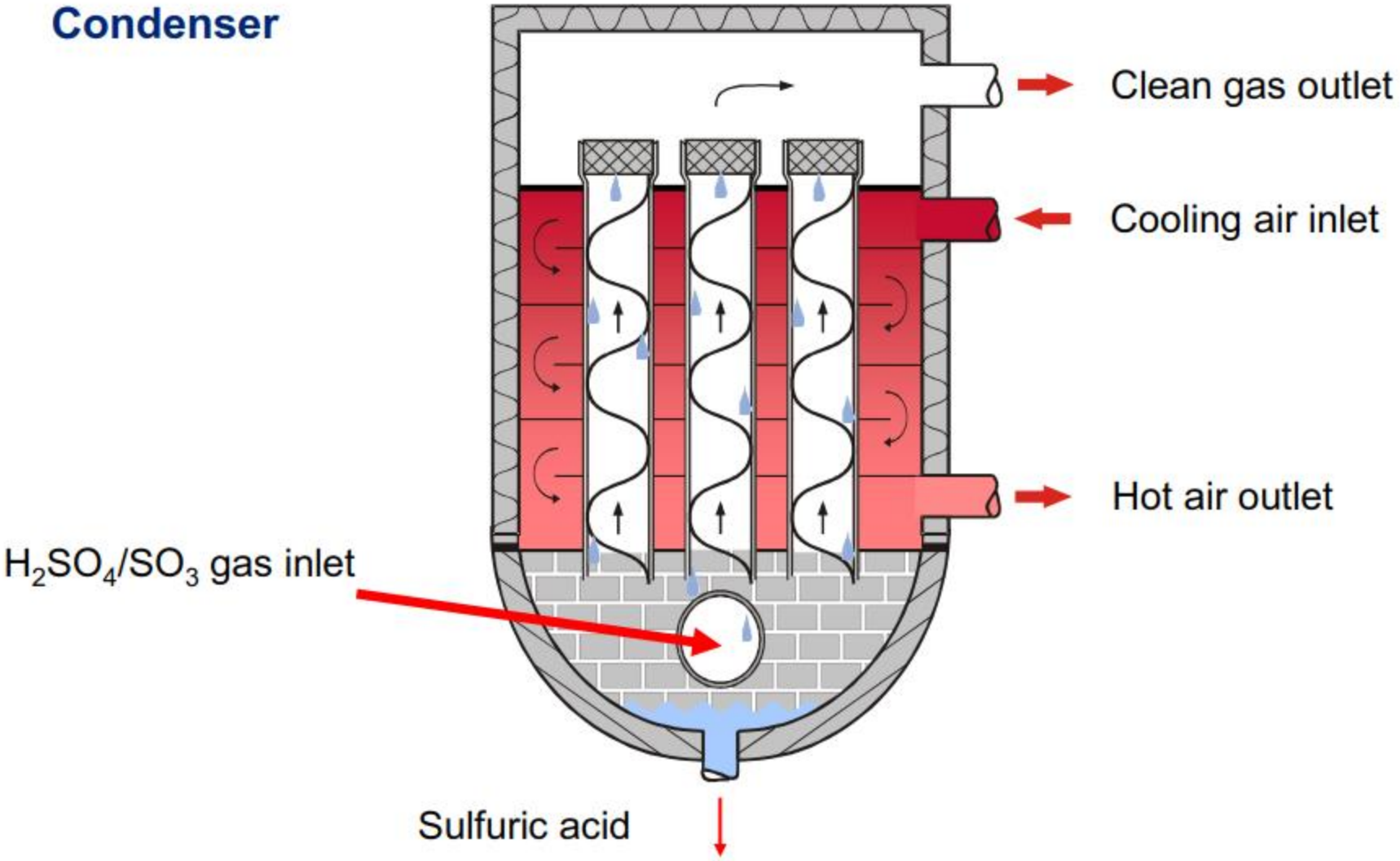
Process / Metallurgy

Condenser



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AngloAmerican

Process / Metallurgy

LEGISLATIVE REQUIREMENTS

National Environmental Management Act (No. 107 of 1998)

- **EIA Regulations (GNR 982)**
- **Listing Notice 1 (GNR 983)**
  - Activity 12 – Construction access road within 32m of watercourse
  - Activity 24 - The development of a road wider than 8 metres
  - Activity 27 – Clearance of construction area in excess of 1 ha
  - Activity 34 – Amendment of AEL

LEGISLATIVE REQUIREMENTS

National Environmental Management Act (No. 107 of 1998)

- **Listing Notice 2 (GNR 984)**
  - Activity 4 – The storage of acid in excess of 500 cubic metres of dangerous goods
- **Scoping and Environmental Impact Reporting Process**

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LEGISLATIVE REQUIREMENTS

National Environmental Management Act (No. 107 of 1998)

→ **Listing Notice 3 (GNR 985)**

- Activity 2 – The development of reservoirs within 10km of nature reserves
- Activity 4 – The development of a road within 10km of nature reserves
- Activity 14 - Construction access road within 32m of watercourse and within 10km of nature reserves

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LEGISLATIVE REQUIREMENTS

National Environmental Management Air Quality Act (No. 59 of 2008)

Due to the changes in emissions (positive) from the Mortimer Smelter an amendment to the existing Atmospheric Emissions Licence as well as a revised emissions inventory will be required for the proposed project (once authorised)

In terms of section 21 of the NEM:AQA a list of scheduled processes were published in GNR893 (November 2013). Potential scheduled processes applicable are Subcategory 4.1 and Subcategory 4.16

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(1) *Subcategory 4.1: Drying and Calcining*

Description:	Drying and calcining of mineral solids including ore.		
Application:	Facilities with capacity of more than 100 tons/month product.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Particulate matter	N/A	New	50
		Existing	100
Sulphur dioxide	SO_2	New	1000
		Existing	1000
Oxides of nitrogen	NO_X expressed as NO_2	New	500
		Existing	1200

(16) *Subcategory 4.16: Smelting and Converting of Sulphide Ores*

Description:	Processes in which sulphide ores are smelted, roasted calcined or converted (Excluding Inorganic Chemicals-related activities regulated under Category 7).		
Application:	All installations.		
Substance or mixture of substances		**Plant status**	**mg/Nm³ under normal conditions of 273 Kelvin and 101.3 kPa.**
Common name	**Chemical symbol**		
Particulate matter	N/A	New	50
		Existing	100
Oxides of nitrogen	NO_X expressed as NO_2	New	350
		Existing	2000
Sulphur dioxide (feed SO_2 <5% SO2)	SO_2	New	1200
		Existing	3500
Sulphur dioxide (feed SO_2 >5% SO_2)	SO_2	New	1200
		Existing	2500

LEGISLATIVE REQUIREMENTS

National Water Act (No. 36 of 1998)

- **Polokwane Smelter Water Use Licence No: 27085555**
- **Provision for the abstraction of 218 m^3/day from boreholes for watering of gardens and game watering purposes**
- **The Licence will have to be amended to enable Anglo to use the abstracted water for processing purposes**
- **Construction access road within 500m of wetland**

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SPECIALIST STUDIES

- Air Quality Impact Assessment
- Noise Impact Assessment
- Biodiversity Assessment
- Wetland Assessment
- Climate Change Assessment
- Heritage Impact Assessment
- Major Hazard Assessment
- Social Impact Assessment
- Closure Assessment and Plan

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COMMENTS RECEIVED

Comment Raised	Response
Air Quality Narrative	
Provide Clarity and/or more information on the coal burning at the informal settlement referred to in section 7.8 of your report.	Your concern regarding the statement in section 7.8 of the Draft Scoping Report is noted. This statement relates to the regional baseline environment and was extracted from documents relevant to the greater Polokwane Area (Draft Environmental Impact Report for the Proposed Smelter in the Pietersburg Area, dated August 2001) and not just Polokwane Smelters. This statement hence does not intend to deflect from Polokwane Smelter but to provide a background of all activities taking place in the area. The proposed Air Quality Impact Assessment will assess the existing operations (baseline) and the impact of the proposed SO_2 Abatement Plant. It is anticipated that there will be a positive air quality impact (reduced SO_2 emissions).

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COMMENTS RECEIVED

Comment Raised	Response
Air Quality Narrative	
You are requested to submit a plan of study detailing the general overview of the intended modelling approach for the modelling which will be conducted as part of he Air Quality Impact Assessment.	We intend to use the Aermod (Tier 2) and / or Calpuff (Tier 3) modelling platforms as recommended in The Regulations Regarding Air Dispersion Modelling, as published in Government Notice 533 of 2014 (Government Gazette 37804). An emissions inventory will inform the model input data. The scenarios will include: 1. Existing Activities 2. Construction Phase of Proposed Development 3. Operational Phase of Proposed Activities 4. Cumulative Assessments of existing and proposed sources on site

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PROJECT SCHEDULE

Task	Dates
Pre-Application Meeting - LEDET	27 January 2017
Submission of Application Form	11 February 2017
Stakeholder Review of Draft Scoping Report	11 February 2017 –13 March 2017 (30 days)
Authority Approval of Scoping Phase	17 May 2017
Stakeholder Review of Draft EIAR	9 June 2017 to 10 July 2017 (30 days)
Submission of AEL Application	10 August 2017
Authority Approval of EIAR	20 July 2017 to 14 November 2017 (107 days)
AEL Authority Review (Subsequent to receipt of Environmental Authorisation)	16 November 2017 to 7 January 2018 (30 days)

QUESTIONS AND DISCUSSIONS

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