

MEETING NOTES

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Job Title	Proposed Installation of Sulphur Dioxide Abatement Equipment at Mortimer Smelter
Project Number	31101
Date	16 March 2017
Time	10:00 – 11:00
Venue	NWREAD Rustenburg
Subject	Proposed Installation of Sulphur Dioxide Abatement Equipment at Mortimer Smelter – Bojanala District Municipality Pre-Application Meeting
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 North West Department of Agriculture and Rural Development (NWREAD) for the opportunity to meet with them to discuss the Proposed Installation of Sulphur Dioxide Abatement Equipment at Mortimer Smelter.
- 1.2 A round of introductions was done, including:
 - NWREAD – Carene Niewoudt, Lungiswa Nonkomo, Motshabi Mohlisi, Ellis Thebe, Tato Loeto, Bopaki Buthelezi and Iketleng Monyeke
 - Anglo American Platinum Limited – Gerrit van De Linde
 - WSP | Parsons Brinckerhoff, Environment & Energy, Africa (WSP | Parsons Brinckerhoff) – 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 Mortimer Smelter, which is located at the Union Section (RPM-US). The Mortimer Smelter is an existing metallurgical industrial furnace where sulphide ores are smelted.
- 2.2 The off- gas from Mortimer Smelter is currently being treated via 3 electrostatic precipitators (ESPs); exhaust from the ESPs is vented into the atmosphere via a stack at 80m above the ground. The emissions include particulate matter (PM), SO₂, and nitrogen oxide (NO_x).
- 2.3 The National Environmental Management Air Quality Act (No. 39 of 2004) (NEM:AQA) requires that furnaces at metallurgical industries be operated with efficient SO₂ abatement systems by 2015, however Mortimer Smelter has been given an extension until 2020. In order to comply with new South African legislation, and associated more stringent emission standards, an SO₂ abatement system must be installed at the Mortimer Smelter.
- 2.4 The proposed strategy to reduce SO₂ to achieve the Minimum Emission Standards (MES) is the installation of a Wet Gas Sulphuric Acid (WSA) Plant that will convert the SO₂ contained in the off-gas into commercial-grade concentrated sulphuric acid (H₂SO₄). The

ACTION

exhaust from the WSA plant (containing reduced SO₂ 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 COMPETENT AUTHORITY

- 3.1 Currently the Mortimer Smelter and proposed SO₂ Abatement Equipment falls within the mining right area of RPM-US and the Department of Mineral Resources (DMR) is the competent authority for this project.
- 3.2 RPM-US is in the process of separating its operations. The Smelter operations will be retained by Anglo American Platinum Limited and will be removed from the existing mining right. Once this process is finalised the DMR will no longer be the competent authority and the duty will be transferred to the NWREAD
- 3.3 There is a potential that the Separation process will be finalised prior to an Environmental Authorisation being issued. This will result in a potential change in the competent authority, however this will be addressed at the time.

4.0 NEMA ACTIVITIES

- 4.1 The NWREAD requested that activity 56 in terms of Listing Notice 1 be included. WSP agreed to include this activity. WSP

5.0 AIR QUALITY ACTIVITIES

- 5.1 It was queried whether Subcategory 7.2: Production of Acids of GNR 983 (22 November 2013) could be applicable to the application.
- 5.2 Subcategory 7.2 states that it is applicable to all installations producing, handling and or using more than 100 tons per annum of any of the listed compounds (Excluding metallurgical processes-related activities regulated under category 4). Subcategory 4.1 and 4.16 are being applied for and as such Subcategory 7.2 will not be applicable.
- 5.3 In addition subsequent to the meeting it was confirmed that Anglo American Platinum Limited and the Department of Environmental Affairs (DEA) reached a consensus that none of the activities specified in Categories beside Category 4: Metallurgical Industry are applicable to their operations. As such Subcategory 7.2 will not be applicable.

6.0 DRAFT SCOPING REPORT

- 6.1 NWREAD indicated that they only received a hard copy of the Draft Scoping Report for comment on 9 March 2017 and raised a concern that the Final Scoping Report submitted to the DMR did not include their comments.
- 6.2 WSP indicated that an electronic copy of the Draft Scoping Report was submitted to the NWREAD on 22 February 2017.
- 6.3 WSP agreed to address the comments raised by the NWREAD in the Draft Environmental Impact Assessment Report WSP

7.0 DOCUMENTATION SUBMISSION

7.1 It was agreed that 1 Hard copy and 1 electronic copy of all documentation will be submitted to the BDM.

ACTION

WSP

Appendix A – Attendance Register

ATTENDANCE REGISTER




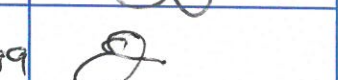


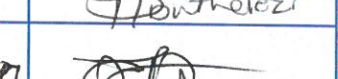

Project: Proposed Installation of Sulphur Dioxide Abatement Equipment at Mortimer Smelter

Applicant: Anglo American Platinum Limited

Meeting Title: Authority Meeting (North West Department Rural, Environment and Agricultural Development)

Venue: NWREAD

Date: 16 March 2017

Name	Company Name	Email	Tel	Signature
Carene Nieuwaardt	NW READ	cnwessel@nwpg.gov.za	0833859486	
Lungiswa Nontkomo	NW READ	lnontkomo@nwpg.gov.za	0832633655	
Motlhabi Mohlalisi	NW READ	mmohlalisi@nwpg.gov.za	0121578434	
Ellis Thebe	NW READ	gethebeen@nwpg.gov.za	018 3895099	
Thato Loto	NW READ	ThatoLoto@nwpg.gov.za	011 292 6451	
Bopaki Buthelezi	NW READ	bbuthelezi@nwpg.gov.za	014 597 3597	
Tiketlene Monyezi	NW READ	tmonyezi@nwpg.gov.za	014 597 3591	
Gerrit van der Merwe	AAP	gerritvd@angloplat.com	0784603306	

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Appendix B - Presentation

Proposed Installation of Sulphur Dioxide Abatement Equipment at Mortimer Smelter

Anglo American Platinum Limited



16 March 2017
NWREAD Meeting

AGENDA

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

WELCOME AND INTRODUCTION

Competent Authority

Department Mineral Resources

Under the One Environmental System, the Minister of Mineral Resources will issue environmental authorisations in terms of the NEMA for mining activities related to the primary extraction and/or primary processing of ore material. The Minister of Environmental Affairs will form the appeal authority

Bojanala District Municipality

Application for Atmospheric Emissions Licence

Applicant

Anglo American Platinum Limited

Environmental Assessment Practitioner

WSP | Parsons Brinckerhoff, Environment & Energy, Africa

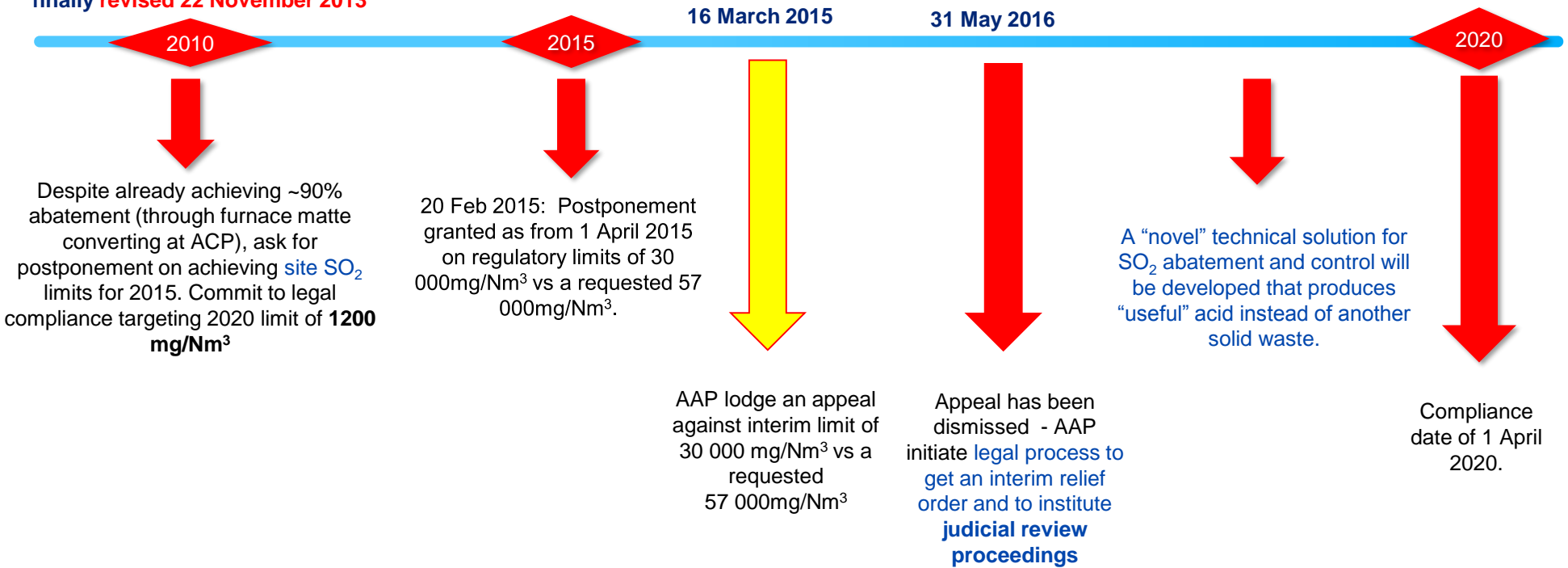
PROJECT BACKGROUND

SO₂ 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

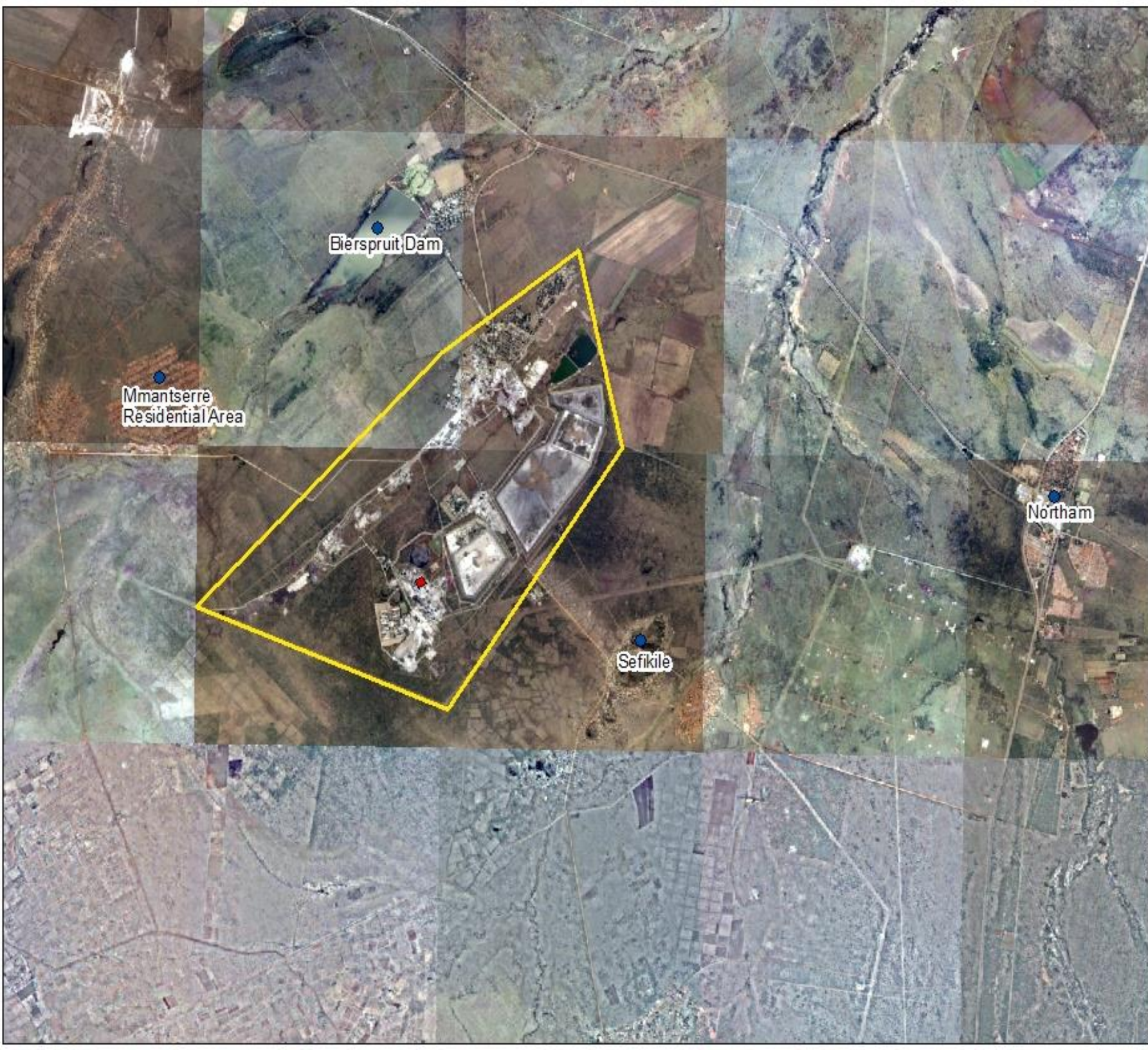
MES: SO₂ for existing facility: 3500mg/Nm³

MES: SO₂ for new/all facility: 1200mg/Nm³



SO ₂ Compliance requirements	Mortimer Smelter
Pre-2015 AEL condition	2500 mg/Nm ³
1 April 2015 MES requirement	3500 mg/Nm ³
1 April 2015 – 31 March 2020 postponement limit	30 000 mg/Nm ³ (can comply with interim limit)
1 April 2020 MES requirement (require abatement)	1200 mg/Nm ³





ANGLO AMERICAN
PLATINUM LIMITED
MORTIMER SMELTER
LOCATION: AERIAL IMAGERY

Legend

- Union Mine
- Mortimer Smelter



DATA SOURCE: URCSIS 10.22

PROJECTION: WGS 1984 UTM ZONE 32Q UTM 1994

PROJECT TITLE: PROPOSED INSTALLATION OF SULPHUR DIOXIDE TREATMENT EQUIPMENT AT ANGLO AMERICAN PLATINUM LIMITED: MORTIMER SMELTER

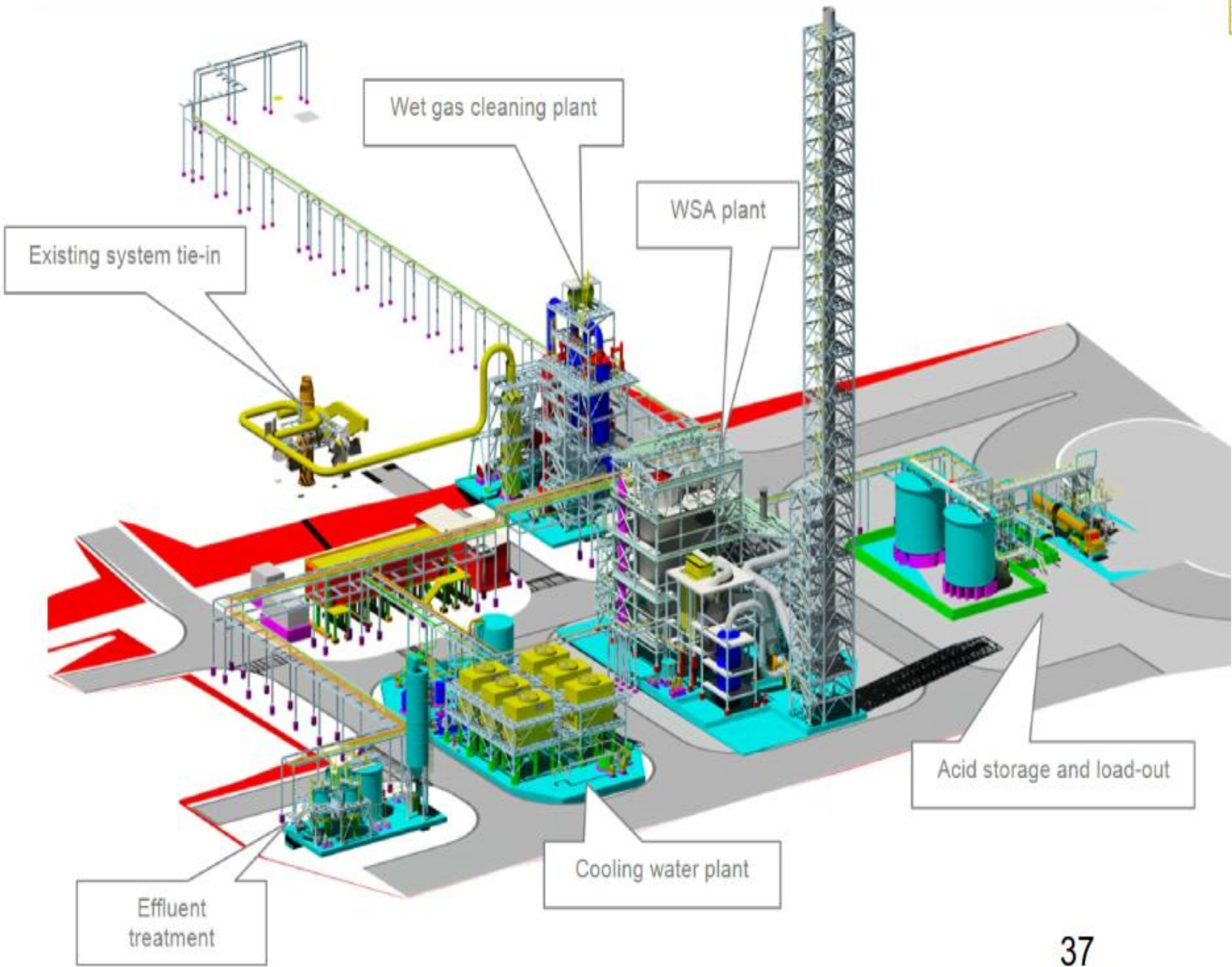
PROJECT NO: 2101	DATE: 2016/06/16
DRAWN BY: ANRI SCHAEFER	
REVIEWED BY: NIGEL SEDD	



WWW.APM.CO.ZA

DISCLAIMER
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PROJECT DESCRIPTION

- Electric Furnace Primary Gas Cleaning (Existing)
- Secondary Gas Cleaning (new additional cleaning)
- WSA Acid Plant
- Effluent Treatment Plant (204m³/day)
- Acid Concentrating Plant
- Acid Plant Cooling Water
- Dangerous Goods Storage and Handling
 - Acid – 560m³
 - LPG – 22.5m³
- Water Usage and Storage
 - Required - 468m³/day
 - Storage – 2 500m³
- Roads



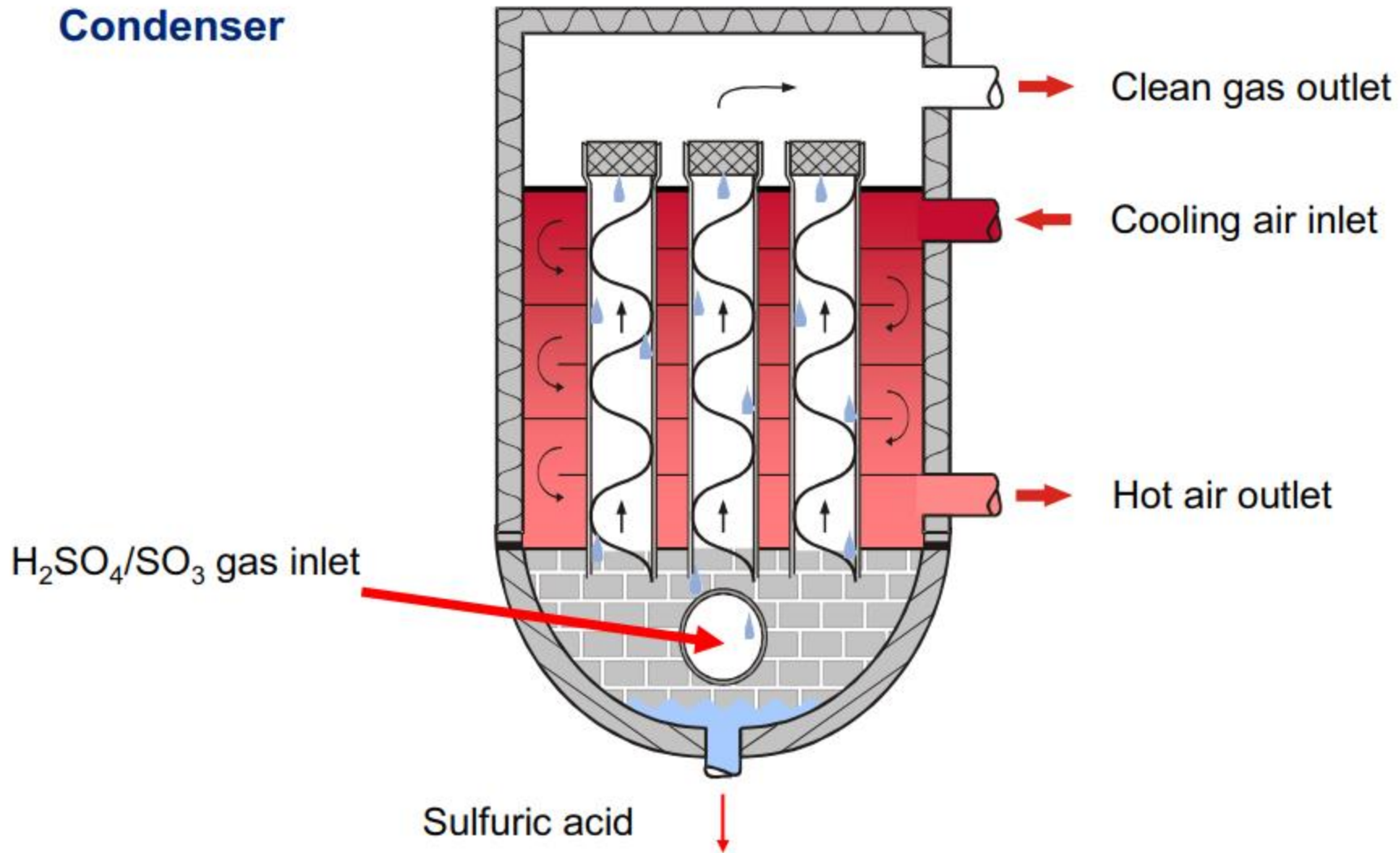
ALTERNATIVES

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



Process / Metallurgy

Condenser





Process / Metallurgy



orter



LEGISLATIVE REQUIREMENTS

National Environmental Management Act (No. 107 of 1998)

→ **EIA Regulations (GNR 982)**

→ **Listing Notice 1 (GNR 983)**

- Activity 24

The development of –

(ii) a road with a reserve wider than 13,5 metres, or where no reserve exists where the road is wider than 8 metres;

New roads which will be wider than 8 metres but have a reserve of less than 30 metres will be constructed.

LEGISLATIVE REQUIREMENTS

National Environmental Management Act (No. 107 of 1998)

→ Listing Notice 1 (GNR 983)

- Activity 34

The expansion or changes to existing facilities for any process or activity where such expansion or changes will result in the need for a permit or licence or an amended permit or licence in terms of national or provincial legislation governing the release of emissions or pollution

The existing Atmospheric Emissions Licence (AEL) for Mortimer Smelter will have to be amended.

LEGISLATIVE REQUIREMENTS

National Environmental Management Act (No. 107 of 1998)

→ Listing Notice 2 (GNR 984)

■ Activity 4

The development of facilities or infrastructure, for the storage, or storage and handling of a dangerous good, where such storage occurs in containers with a combined capacity of more than 500 cubic metres.

The facility will store in excess of 500 cubic metres of dangerous goods.

→ Scoping and Environmental Impact Reporting Process

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)

(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/Nm ³ 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/Nm ³ 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% SO ₂)	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)

- **Union Mine Water Use Licence
No: 03/A24D/ABCGIJ/18929**
- **The Licence will have to be amended to cater for the storage of 2 500 m³ of water**

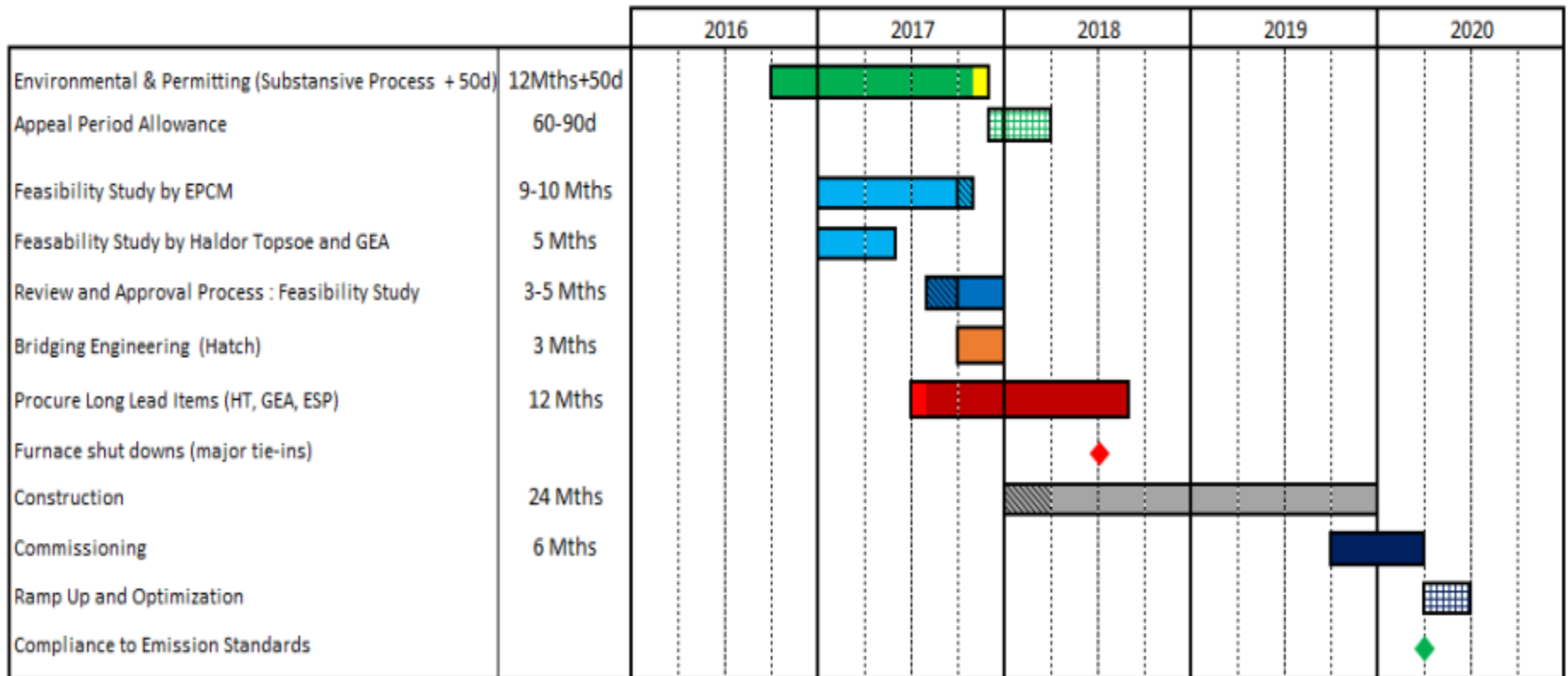
SPECIALIST STUDIES

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

PROJECT SCHEDULE

Task	Dates
Stakeholder Review of Draft Scoping Report	31 January 2017 – 3 March 2017
Authority Meeting (Bojanala District Municipality)	14 March 2017
Authority Approval of Scoping Phase	19 March 2017 – 2 May 2017
Stakeholder Review of Draft EIAR	16 May 2017 to 14 June 2017
Submission of AEL Application	28 June 2017
Authority Approval of EIAR	27 June 2017 to 23 October 2017
AEL Authority Review (Subsequent to receipt of Environmental Authorisation)	15 October 2017 to 23 November 2017 (30 Days)

HIGH LEVEL OVERALL SCHEDULE



QUESTIONS AND DISCUSSIONS