

ESKOM HOLDING SOC Ltd APPLICATION FOR POSTPONEMENT OF THE MINIMUM EMISSION STANDARDS (MES) FOR TUTUKA COAL-FIRED POWER STATION, STANDERTON, MPUMALANGA PROVINCE

1st ROUND OF PUBLIC ENGAGEMENT – STANDERTON PUBLIC MEETING

Draft Minutes of the Standerton Public Meeting

MEETING DATE	29 January 2018
VENUE	Standerton Town Hall
TIME	05:30HRS – 06:30HRS

Meeting Facilitator: Naledzi Environmental Consultants CC - Sean O’Beirne (SO)

Attendees:

Name & Surname	Position	Abbreviation
Eskom Holdings SOC Ltd (Eskom)		
Tobile Bokwe	Environmental Impact Management Unit	TB
Bianca Wernecke	Air Quality Centre of Excellence	BW
Naledzi Environmental Consultants CC (NEC)		
Sean O’Beirne	EAP and Meeting facilitator	SOB
Desmond Musetsho	EAP and Project Manager	DM
Marissa Botha	EAP & Public Participation Programme	MB
Sithabisiwe Ncube-Gari	EAP & Public Participation Programme	SN
Tsundzukani Ritshuri	Public Participation Programme	TR
Tutuka Power Station (TPS)		
Ilse Coop	Environmental Manager	IC
Oupesh Motlhabane	Project Programme Manager (Acting)	OM
Claude Naicker	Risk and Assurance Manager	CN
Reginald Ngomana	SHE Manager	RN
Jabu Mavibela	General Manager	
L Mjingwana	Project Manager	LMJ
Lesiba Mike Molepo	Senior Engineer	LMM
Lehlohonolo Mogwase	Senior Environmental Advisor	LM
Chrissy Msibi	Business Support System Manager & Tutuka Stakeholders Management Forum	CM
Interested and Affected Parties (I&APs)		
Johannes van der Wath	Councillor Ward 10 – Lekwa Local Municipality	JVDW
Riana Buys	Woman in Business – Local Economic Development Secretary	RB
Sizwe Dlamini	Chairperson - Local Economic Development	SD
M. Mbonani	Member STA	MM
THE ATTENDANCE REGISTER IS ATTACHED UNDER ANNEXURE A.		

DISCUSSIONS:

1. WELCOME AND INTRODUCTION

- 1.1 SOB from NEC welcomed everyone and thanked them for their attendance. The project team from NEC, Eskom and TPS introduced themselves and stated their role in the project.
- 1.2 SOB asked attendees if the meeting could be facilitated in English. Attendees were made aware that a Zulu Translator was available should translation be required. The attendees agreed to the manner.
- 1.3 SOB presented the draft Agenda, rules and purpose of the meeting. It was highlighted that all presentations would be queued; next opportunity would be provided for discussions.
- 1.4 RN from Eskom explained the emergency evacuation procedure for the Standerton Town Hall and stated the attendance register would serve as head count to ensure everyone is accounted for at the assembly point.
- 1.5 SOB explained that both Eskom and NEC would present information at the meeting. TB would present the Background & Motivation for the project; SOB would present the Atmospheric Impact Assessment details.

2. PRESENTATIONS

- 2.1 TB from Eskom presented the background and motivation for the Tutuka Coal-Fired Power Station Minimum Emission Standard (MES) Postponement Application.
 - 2.1.1 The location of the TPS was confirmed followed by an illustration of the process of coal input and output at the power station, output being combustion products referred to as emissions. It was stated that the MES Postponement Application focused on the emissions of the power station.
 - 2.1.2 The relevant legislation guiding the application was described. The difference between the MES and National Ambient Air Quality Standards was clarified. It was pointed out that Tutuka Power Station needed to comply with specific MES by a certain timeframe, yet the MES allowed emitters to apply for postponement. Eskom submitted a postponement application from the MES in 2014, after which postponement from the MES was granted for 5 years.
 - 2.1.3 It was pointed out that the current application is not new. It is a rolling application that Eskom would continue to apply for until able to retrofit the power station to comply with the MES.
 - 2.1.4 The MES limits for 2015 and 2020 were provided. It was indicated Eskom applied for postponement from the 2015 limits in 2014 as Tutuka was 30 years old and not designed to comply with the emission limits. Tutuka requested to comply with a PM limit of 350 mg/Nm³ and a NO_x limit of 1200 mg/Nm³ until relevant technology is completely installed to bring the station into compliance with the 2020 standards.

- 2.1.5 It was pointed out Eskom has an emission reduction plan in which technology would be installed in a phased manner in each of the six units at Tutuka to meet the new plant standard levels for PM and NO_x emissions. Eskom also has a committed timeline for the installation. The retrofitting would bring the station into full compliance with new plant standards from 2024 for PM and 2025 for NO_x.
- 2.1.6 The health of people when exposed to emissions was discussed and compared to various other sources contributing to ambient air quality. It was stated that there is a north westerly wind during the day and an easterly wind at night over Tutuka. Eskom stated it monitored air quality at Grootdraai Dam and Majuba Power Station, Grootdraai being more representative of Tutuka's ambient air quality. Yet, based on Majuba's monitoring it is expected that Tutuka would be in compliance with all parameters except for PM on occasion.
- 2.1.7 Eskom's offset programme to minimise emissions in communities around Tutuka was explained. It was highlighted as a different programme/process to the MES Postponement Application resulting in improvement of ambient air quality.
- 2.2 SOB presented the details around the Atmospheric Impact Assessment to be conducted as part of the MES Postponement Application. It was clarified that the assessment would determine the impact of the application on the ambient air quality.
- 2.2.1 The basic power generation principle was illustrated, with an explanation of combustion gasses and fly ash produced with subsequent removal of fly ash from the air through electrostatic precipitators (ESP) before emitted to the atmosphere.
- 2.2.2 The legislative overview and significant difference between ambient and emission standards were revisited; ambient air quality being the air people breath at ground level and emissions standards referring to the emissions at point of release at the stack. Ambient standards are measured in low concentrations at $\mu\text{g}/\text{Nm}^3$ and emission standards at greater concentrations in mg/Nm^3 .
- 2.2.3 The primary pollutants emitted by Eskom and its control were revisited; indicating that the PM is removed by ESP and fabric filters, NO_x can be removed by low NO_x boilers which are fitted on newer plants and SO_x has no direct control.
- 2.2.4 The MES for existing plants and new plants were revisited in which was indicated that new plant standards for 2020 were half the concentrations permitted for existing plants by April 2015. Eskom intends to start retrofitting to units of Tutuka at the start of the 2019 financial year as it cannot meet the $200\text{mg}/\text{Nm}^3$ from January 2019 nor the $100\text{mg}/\text{Nm}^3$ from January 2020.
- 2.2.5 The technology to be installed at Tutuka in each unit to bring the station into compliance was illustrated and explained. It was indicated the main installation would include a Fabric Filter Plant (FFP) at the ESP at each unit to further reduce any emissions emitted to the atmosphere.
- 2.2.6 It was specified that the motivation for postponement of the MES was as a function of technical and cost difficulties. The Atmospheric Impact Report would determine the impact of Tutuka's emissions on the ambient air quality should Eskom continue to

emit. It would include a Dispersion Model of the ambient concentrations and the existing ambient measurements. The assessment would focus only on the ambient standards.

2.2.7 The Dispersion Model and its function was illustrated and explained by means of a cubicle model. It was explained that the model scenarios would include determining the actual emissions, worst case scenario and MES. These scenarios were illustrated in the form of a graph indicating the emission standards, the standards to which Tutuka need to comply and then the actual emissions emitted.

2.3 MB presented the Public Participation Process conducted for the MES Postponement Application.

2.3.1 The application - and public participation process tasks for Tutuka was explained. It was underlined that two rounds of public engagement would be undertaken; the first round served to announce the application, gain inputs from the public on the approach taken to assess the potential impact of the postponement through written notifications and public meetings. The first round of engagement commenced on 12 January 2018 and would be concluded by 14 February 2018. The second round would allow the public to review the draft Motivation and Atmospheric Impact Report for the application and would include two public meetings to facilitate comments.

2.3.2 The timeframes at which the public could expect consultation were provided.

2.3.3 The tasks completed as part of the first round of public engagement were stipulated including the future tasks to be undertaken as part of the second round of engagement.

2.3.4 The way forward for the public participation process was discussed. The minutes of the public meetings would be prepared and distributed to attendees for a comment period of 7 days. Attendees should state in this time frame whether all comments and issues have been recorded correctly and submit such comments to NEC, subsequently the minutes would be finalised. An Issues and Response Report would be prepared including the draft Motivation and AIR. The second round of engagement would commence on 26 February up to 9 April 2018. NEC would send out a notification letter, notices and newspaper advertisements to notify the public of the commencement of the second engagement phase. Two public meetings would be scheduled for the second round as per the first round of engagement in Standerton and Thuthukani. It is anticipated that the meetings would take place during the week of 12 – 16 March 2018.

Presentations are attached under Annexure B of the minutes.

3. DISCUSSIONS

3.1 SOB opened the floor for discussions. Refer to 3.2 in table format for comments raised at the public meeting and associated responses by the project team.

3.2 Comments and Responses recorded at Public Meeting of 29 January 2018			
NO	Comment	Commenter	Response
3.2.1	The presentations for Eskom and the Atmospheric Impact Assessment were presented too fast. Next time present the information slower.	Mr Sizwe Dlamini Chairperson Lekwa Local Economic Development Forum	(3.2.1) SOB, from NEC, responded that the request is noted.
3.2.2	There were recent strikes regarding some of the Tutuka Power Station projects. A meeting should also be arranged in Sakhile.		(3.2.2) SOB, from NEC, responded another meeting has been scheduled for Thuthukani, next to Tutuka Power Station, for 30 January 2018, to allow I&APs opportunity to obtain more information regarding the application. Thuthukani is the nearest village to the power station.
3.2.3	Does Tutuka Power Station comply with green energy?		(3.2.3) CN, Risk and Assurance Manager for Tutuka Power Station, responded the power station will be developing a Solar Plant. -In doing so Tutuka will be less dependent on the electricity that it generates at the station. Some of Tutuka's processes will also be driven off the solar energy. Eskom is in the process of obtaining an Environmental Authorisation for the Solar Plant next to the station. -Once approved the Solar Plant would be commissioned in 2-3 years.
3.2.4	How far does the air pollution travel / spread from Tutuka Power Station? Is Sakhile affected?		(3.2.4) SOB, from NEC, responded emissions from Tutuka Power Station can be monitored 100's kilometres away from the station but in very low concentrations. Typically the impact area where the emissions from a power station are noticeable up to a 5km radius.

3.2.5	<p>What is the lifespan of Tutuka Power Station, and is it worthwhile to spend the money on retrofitting?</p>	<p>Mr Johannes van Der Wath Ward Councillor 10 - DA</p>	<p>CN, Risk and Assurance Manager for Tutuka Power Station, responded it is expected that Tutuka will still be in service up to at least 2050, depending on availability of other power stations.</p> <p>If Eskom has certification that the power station will still be in service for so long, we must still comply with all the legislative requirements such as the 2013 Minimum Emission Standards. Retrofitting is, hence, a step towards complying with these standards.</p> <p>SOB summarised the power station still has a good 30 years of service left which warrants the investment of abatement technology for particulate matter and NOx. SOx is a different aspect.</p>
3.2.6	<p>What are the effects of emissions from the power station on people?</p> <p>How do we comment on the documentation provided at the library, if there is no one to guide us through the information?</p>	<p>Mr Sizwe Dlamini Chairperson Lekwa Local Economic Development Forum</p>	<p>SOB, from NEC, responded that there are two separate air qualities being referred to; the ambient air quality at ground level and secondly the air quality of emissions emitted at the stack of the power station.</p> <p>The ambient air quality is the quality of air breathed by people at ground level. This application for postponement is subject to an Atmospheric Impact Assessment. The assessment will ascertain how ambient standards will be affected by the power station emissions. The assessment will only focus on the ambient standards. It will consider the impact on Thuthukani.</p> <p>The purpose of the public meetings during the 1st and 2nd round of public engagement serves to provide clarity on the documentation and results of the Atmospheric Impact Assessment. The project team is available at the public</p>

			meetings to answer any questions and give clarity on any documents out for public review.
3.2.7	<p>What are the impacts on the Thuthukani community?</p>	<p>Mr Sizwe Dlamini Chairperson Lekwa Local Economic Development Forum</p>	<p>SOB responded that, for the Atmospheric Impact Assessment, Eskom will supply NEC with actual emissions data that would be emitting from the power station stack. The Air Quality Specialist would use the data to model a scenario to indicate; what would be the concentration of the emissions at ambient level where people breathe air, such as at Thuthukani, based on the actual emissions emitted at the stack. It would also determine the effects of this application on the communities surrounding the power station.</p> <p>The National Ambient Air Quality Standards specify what levels of concentrations are acceptable for humans and also indicate what limits may not be exceeded. If the model proves that the ambient air quality limit is not exceeded then the emissions would be acceptable, yet if the ambient limits are exceeded it would need to be determined if the levels are unacceptable and how should Eskom further abate it.</p>
3.2.8	<p>Sulphur dioxide is a major emission in the Standerton area. How does Eskom control its sulphur dioxide emissions?</p> <p>Also, who is going to monitor that the power station will comply with the minimum emission standard levels at the stack and not exceed to maximum limits/upper limits and how?</p>	<p>Mr Johannes van Der Wath Ward Councillor 10 - DA</p>	<p>CN, Risk and Assurance Manager for Tutuka Power Station, responded that Eskom has not reached the SO_x limit at Tutuka. We have been operating way below the limit. As of 28 January 2018 Eskom was operating at 185mg/m³. Eskom also implements the ISO 14001 system and engage with stakeholders on a transparent level. Further, Eskom reports its actual emissions to government on a regular basis.</p> <p>SOB, from NEC, responded that SO₂ control technology is</p>

			<p>very expensive, requires a lot of water and creates a waste stream. Desulphurisation is a complicated process which implements flue gas control and its technology is difficult to implement. Kusile and Medupi Power Stations are new stations and have been equipped with Flue Gas Desulphurisation Plants. Tutuka Power Station is an old plant and it is difficult to implement flue gas control on an old plant. This will also have a significant impact on the cost of electricity.</p> <p>Jabu Mavimbela, General Manager of Tutuka Power Station, added that it is very difficult for Eskom to operate these Desulphurisation Plants due to its excessive water requirements. South Africa is a water scarce country.</p>
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4. STANDERTON PUBLIC MEETING PHOTOS



Figure 1: Tobile Bokwe from Eskom presenting the Background and Motivation for the application



Figure 2: Sean O’Beirne from NEC presenting the Atmospheric Impact Assessment overview

