

**ENVIRONMENTAL IMPACT ASSESSMENT AND WASTE MANAGEMENT LICENSE
FOR THE PROPOSED CONTINUOUS ASH DISPOSAL ACTIVITIES AT THE
TUTUKA POWER STATION, MPUMALANGA PROVINCE**

COMMENT AND RESPONSES REPORT – FINAL SCOPING REPORT

SUMMARY OF ENVIRONMENTAL ISSUES/CONCERNS AND SUGGESTIONS RAISED BY INTERESTED AND/OR AFFECTED PARTIES

- This Comments and Responses Report (C&RR) is a record of all the contributed issues raised by Stakeholders ranging across all sectors of society.
- Full record of every issue raised is available from Lidwala Consulting.
- The name, affiliation (as at that time) and date of the commentator are also indicated
- Comments are captured under each impact alphabetically according to Surname

INDEX TO ISSUES IN THIS TABLE

1.	Agricultural Potential Related Comments/ Issues	3
2.	Air Pollution Related Comments/ Issues	3
3.	Biodiversity Related Impact Comments/ Issues	4
4.	By-products from disposable ash Related Comments / Issues	4
5.	Coal Stockpiles Related Comments / Issues	5
6.	Construction and Maintenance Related Comments/ Issues.....	5
7.	Disposal of Ash Related Comments / Issues	6
8.	EIA Process Related Impact Comments/ Issues.....	6
9.	Erosion Related Comments/ Issues	6
10.	Health Impact Related Comments/ Issues.....	7
11.	Land-use Related Comments/ Issues	7
12.	Noise Impact Related Comments/ Issues	7
13.	Rehabilitation Related Comments/ Issues.....	7
14.	Technical Related Comments/ Issues.....	8
15.	Water (Ground and Surface) Related Impact Comments/ Issues	8
16.	General Comments/ Issues	9

ABBREVIATIONS USED IN THIS COMMENT AND RESPONSES REPORT:

DARDLA Dept Agriculture, Rural Development and Land Administration	DSR: Draft Scoping Report	EAP Environmental Assessment Practitioner
EA Environmental Authorisation	FGM Focus Group Meeting	KSW Key Stakeholder Workshop
PM Public Meeting	TAUSA Transvaal Agricultural Union SA	

Issue/Comment	Raised By	Response
1. Agricultural Potential Related Comments/ Issues		
Should an EA be granted would it have negative impacts on farming activities?	Vosloo, Thys ThysVoslooFamily Trust E-mail: 3 October 2012	Chapter 8 has identified potential Agricultural impacts. A full agricultural potential study will be undertaken during the EIA phase.
It was suggested that pollution of grazing, crop and land be investigated during the EIA process.		
2. Air Pollution Related Comments/ Issues		
It was commented that the stockpile yards at Tutuka Power Station seem like they are not being managed properly.	Riekert, Simon Landowner FGM: 22 November 2012	Coal dust at Tutuka Power Station's Coal Stockyard is managed by doing dust suppression. The dust suppression is done by the use of water tankers driving around at frequent intervals. It is unfortunate that water sprinklers cannot be utilised at the stock yard due to the effect of water on coal, it is a huge problem to transport wet coal via conveyers as they trip due to excess weight, it is also a problem to burn wet coal as it takes a while to burn. It should also be noted that Eskom took the contacts details of SR so that he can elaborate more on his comment, so that it will give Eskom a better chance to respond to the comment. William Mogwase, Eskom Tutuka Power Station
The project team was informed that Tutuka Power Station monitoring is not done properly because buckets have been placed at their house, but not collected.		The matter will be addressed. Eskom is in the process of placing a new contract to handling fugitive dust management on site inclusive of the ash disposal facility and inclusive of maintaining dust buckets, target date is 02/2013. William Mogwase, Eskom Tutuka Power Station
The project team that Tutuka Power Station ash suppression is not effective as surrounding landowners experience serious problems due to ash settling on their crops and grazing land. During the dusty seasons, ash is often blown to the surrounding atmosphere and it impairs visibility. The situation is so bad that the farm workers do not want to live on the farms anymore due to this health issue. Tutuka Power Station is urged to address the current problems before continuing with more ashing.	Van Heerden, Kobus Landowner FGM: 22 November 2012	Tutuka Power Station is doing dust suppression on top of the ash disposal facility using two mechanisms that is dust suppression by moveable sprinklers and a water tanker driving on top of the ash disposal facility. The dust suppression sprinklers are running 24 hours a day and a tanker is driving around at frequent interval. Tutuka has just started with a project of looking at different dust suppression methods, one of the methods being looked at is dust suppression on the sides/slope of the ash disposal facility as both the sprinklers and the tankers cannot reach those areas. William Mogwase, Eskom Tutuka Power Station

Issue/Comment	Raised By	Response
<p>It was suggested that the environmental team visit the adjoining farms to familiarise themselves with the environmental impacts experienced by the landowners in the area.</p> <p>Upon Lidwala's request as to which specialists the attendee is referring to, it was replied that it should be the Air Pollution Specialist and the Agricultural Specialist.</p>		<p>Tutuka Power Station has an ISO 14001 EMS certification. He further said that the farmers should make use of the farmer's quarterly meetings to discuss such matters because it is disheartening when one attends meetings to discuss future developments and then be made aware that challenges due to current operations are not being discussed or addressed by the power station.</p> <p>Tobile Bokwe, Eskom Sustainability Division</p> <p>Tutuka Power Station will conduct a few site visits with the landowners and requested the public participation team to forward the attendees' contact details to him.</p> <p>William Mogwase, Eskom Tutuka Power Station</p>
<p>It was suggested that Air Pollution be investigated during the EIA process.</p>	<p>Vosloo, Thys ThysVoslooFamily Trust E-mail: 3 October 2012</p>	<p>Appendix O addresses potential Air Pollution impacts. A full air quality study will be undertaken during the EIA phase.</p>
<p>3. Biodiversity Related Impact Comments/ Issues</p>		
<p>It was asked as how thick is the topsoil that is removed when establishing an ash disposal facility. This question relates to agricultural soil classification.</p>	<p>Struthers, Martin Chairman: Environmental Protection Agency KSW: 21 November 2012</p>	<p>When Tutuka Power Station establishes an ash disposal facility they remove about 25 to 30 cm of topsoil.</p> <p>William Mogwase, Eskom Tutuka Power Station</p>
<p>When Eskom establish an ash disposal facility, does it have an impact on the topsoil; will the topsoil be removed before the ash is disposed of on that site; and will the ash disposal facility be lined.</p>	<p>Venter, Jan DARDLA: Soil Conservationist KSW: 21 November 2012</p>	<p>Before Eskom can dispose of the ash, the topsoil is removed, and stockpiled. In terms of the new legislation, the Authorities, e.g. DWA and DEA, tend to require that waste facilities should be lined, but they make a decision on each case based on its merits.</p> <p>Ashlea Strong, Lidwala Environmental</p> <p>Topsoil is used to rehabilitate the ash disposal facility as they continue with the ashing process.</p> <p>William Mogwase, Eskom Tutuka Power Station</p>
<p>It was suggest that the impact on fauna and flora be investigated during the EIA process.</p>	<p>Vosloo, Thys ThysVoslooFamily Trust E-mail: 3 October 2012</p>	<p>Appendix I addresses potential fauna and flora impactts. A full biodiversity study will be undertaken during the EIA phase.</p>
<p>4. By-products from disposable ash Related Comments / Issues</p>		
<p>Can concrete be made from the ash and if so why can't it be used to fix gravel roads?</p>	<p>Celliers, Johan Chairman: TAUSA (Mpumalanga) KSW: 21 November 2012</p>	<p>Eskom has just established a contract with a consultant who specialises in waste, to investigate whether there are uses for the ash. Once these results are available, it will be made available to the attendees. It was also mentioned that this study</p>

Issue/Comment	Raised By	Response
		<p>is being undertaken to inform the Eskom-Mpumalanga Forum. Tobile Bokwe, Eskom Sustainability Division</p> <p>The Majuba Power Station Team confirmed that they currently sell approximately 10% of their fly ash to external companies for alternative uses.</p>
5. Coal Stockpiles Related Comments / Issues		
It was asked whether the area where coal is discarded is also lined.	Venter, Jan DARDLA: Soil Conservationist KSW: 21 November 2012	Tutuka Power Station is in the planning process to line waste facilities, as informed by WULs and Duty of Care from Eskom. Tobile Bokwe, Eskom Sustainability Division
6. Construction and Maintenance Related Comments/ Issues		
<p>In terms of Tailings Dams and Ash Disposal Facilities – Dam Safety Requirements in terms of Chapter 12 of the National Water Act, 1998, the following:</p> <ol style="list-style-type: none"> 1. If the operational storage of the free water on top of a tailings dam / mine residue deposit or ash dam does not exceed 50 000 m³, the particular tailings dam or ash dam is not registered or classified as a dam with a safety risk. 2. The requirement that the free water on top of the facility must be reduced to below 50 000 m³, or a more stringent requirement, must be clearly specified in the Operation Manual and /or Code of Practice of the tailings dam / mine residue deposit or ash dam and should be actively enforced throughout the life of the dam. If not, the tailings dam / mine residue deposit or ash dam must be registered as a dam with a safety risk in terms of dam safety legislation. It will then be classified and it must then comply with all the requirements of the dam safety legislation in Chapter 12 of the Water Act and the requirements of dam safety regulations issued in terms of this chapter. 3. If the tailings dam / mine residue deposit or ash dam is part of a mining operation, it must at all times comply with all the applicable legislation administered by the Department of Mineral Resources (DMR). The DMR requires that every tailings dam / 	Van den Berg, Leo Department of Water Affairs: Dam Safety Office E-mail: 28 September 2012	Comment noted and forwarded to the Client for their attention as well as to the Legal Specialist for inclusion in the full legal review.

Issue/Comment	Raised By	Response
<p>mine residue deposit must have a Code of Practice. A guideline for such a Code of Practice has been developed by DMR.</p> <p>4. Pollution control dams associated with ash disposal and tailings facilities must however comply with the dam safety requirements of Chapter 12 of the National Water Act if they comply with the size requirements of a dam with a safety risk. Only dams with a maximum wall height that exceeds 5,0 m and with a storage capacity of more than 50 000 m³, or any other dam declared as a dam with a safety risk) are subject to the dam safety legislation in Chapter 12 of the National Water Act and the Dam Safety Regulations in Government Notice R. 139 of 24 February 2012.</p> <p>5. For more information about dam safety you can visit the Dam Safety Office website (part of the Department of Water Affairs website at: http://www.dwa.gov.za/DSO/)</p>		
7. Disposal of Ash Related Comments / Issues		
<p>It was asked if ash be back-ashed into a mining area.</p>	<p>Celliers, Johan Chairman: TAUSA (Mpumalanga) KSW: 21 November 2012</p>	<p>Suggestions such as this that could reduce the footprint of an ash disposal facility and are always appreciated, but this specific question has its challenges. Typical challenges include liability with respect to groundwater pollution between the mining houses and Eskom, and these are never sorted out. Eskom will continue to keep this option under investigation to ensure the reduction of footprint.</p> <p>Tobile Bokwe, Eskom Sustainability Division</p>
8. EIA Process Related Impact Comments/ Issues		
<p>Cumulative impacts should be assessed during the EIA as there are a number of projects taking place in the area. e.g. Tutuka and proposed prospecting activity</p>	<p>Venter, Jan DARDLA: Soil Conservationist KSW: 21 November 2012</p>	<p>Cumulative impacts are being taken into account as it is a requirement in terms of EIA legislation. e.g. existing infrastructure, future applications, etc. It is accepted that the limitation is on what is known about future planning.</p> <p>Ashlea Strong, Lidwala Environmental</p>
9. Erosion Related Comments/ Issues		
<p>Looking at the diagram presented, it is noted that the surface of the ash disposal facility is flat and ask whether it will remain flat. If so, it would look unnatural and will also cause erosion.</p>	<p>Mells, Hendrik Chairman: Environmental Protection Agency</p>	<p>It is correct that a flat surface would cause erosion problems due to water seepage. It is expected that the concept design would provide a design that would be more visually acceptable,</p>

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	KSW: 21 November 2012	avoid standing water, and would allow collection of any run-off water. Tobile Bokwe, Eskom Sustainability Division
10. Health Impact Related Comments/ Issues		
It was asked if heavy metals are present in the ash and if the ash is toxic.	Mells, Hendrik Chairman: Environmental Protection Agency KSW: 21 November 2012	Samples from the most recent ash were taken and the preliminary results will be in the Draft Environmental Impact (DEIR). Ashlea Strong, Lidwala Environmental
11. Land-use Related Comments/ Issues		
When Eskom rehabilitate ash disposal facilities, do they look at the land use?	Venter, Jan DARDLA: Soil Conservationist KSW: 21 November 2012	This issue will be addressed under the Land Capability/Agricultural Potential study. Ashlea Strong, Lidwala Environmental
Rehabilitation should be done in such a way that the same land capability is established after rehabilitation has taken place.		Comment note.
12. Noise Impact Related Comments/ Issues		
It was suggested that Noise be investigated during the EIA process.	Vosloo, Thys ThysVoslooFamily Trust E-mail: 3 October 2012	A Noise study will be undertaken during the EIA phase.
13. Rehabilitation Related Comments/ Issues		
Does Lidwala have access to information of ash disposal facilities which were closed in the past and the impacts they have on the environment and has Lidwala looked at existing information on Eskom's business?	Du Plessis, D Secretary: TAUSA KSW: 21 November 2012	Lidwala is not aware of any ash disposal facilities that have been closed. Information was received from Eskom regarding their existing ashing facilities and processes and Eskom will continue to forward the required information as and when needed. Ashlea Strong, Lidwala Environmental
When the top soil is removed it is left outside for a long period of time and this sterilizes the soil. Also, when excavation is done, the topsoil is removed horizontally and tipped overturned over and during rehabilitation it is not replaced in the correct soil condition order.	Venter, Jan DARDLA: Soil Conservationist KSW: 21 November 2012	The stockpiling of topsoil is for a short period of time (up to a month), by which time the soil is used for rehabilitation. William Mogwase, Eskom Tutuka Power Station
It was commented that it is believed that Eskom manages its stock pile in such a manner as to prevent erosion.		Attendee was thanked for this comment, and it was well received. William Mogwase, Eskom Tutuka Power Station

Issue/Comment	Raised By	Response
14. Technical Related Comments/ Issues		
<p>wanted to know what the current life span of the Power Station is.</p>	<p>Lottering, D Lekwa Local Municipality FGM: 22 November 2012</p>	<p>The current life span of the Power Station is 40 years and has a 5 year contingency plan, from now. From 1990 to 2050, plus 5 years contingency for the ash disposal facility, then the end date is 2055. Egard van Rensburg, Eskom Tutuka Power Station</p>
<p>The project team was informed that there are a number of developments planned for Thuthukanitownship and that the team needs to take note of these planned developments.</p>		<p>The EIA team will ensure that the relevant information is sourced from those developments by specialists. Ashlea Strong, Lidwala Environmental</p>
<p>It was commented that there are different regulations that Eskom must adhere to e.g. Eskom has to adhere to sewerage, air quality standards, etc, and if Eskom does not adhere to these standards they are penalised.</p>	<p>Mells, Hendrik Chairman: Environmental Protection Agency KSW: 21 November 2012</p>	<p>Eskom (Generation) has an ISO 14001 EMS Certification. Therefore, should landowners notice any non-compliance; it needs to be communicated with the station. The attendees were also provided with the name and contact details of Eskom's Environmental Manager, Ms Deidre Herbst, if there are any issues that they have reported to the station, and are not getting attention, they are most welcome to give her a call. Tobile Bokwe, Eskom Sustainability Division</p>
<p>Wanted to know if the current ash disposal facility has a buffer zone. It was commented that generally that buffer zone is inside property boundaries of an adjoining landowner's property and that limits the usage of that portion of land and also any expansions. Roshcon is currently in the process to cover the standby ash disposal facility top surface with a top soil to reduce the open ash surface. Roshcon also investigate to use a binding agent in the water to spray this water on the side slopes of the ash disposal facility.</p>	<p>Van Heerden, Kobus Landowner FGM: 22 November 2012</p>	<p>There is no buffer zone. The EIA study would determine if a buffer zone is required. The ash disposal facility expansion design has no buffer zone. If buffer zone is required, then additional land should be purchased. Egard van Rensburg, Eskom Tutuka Power Station</p>
15. Water (Ground and Surface) Related Impact Comments/ Issues		
<p>It was commented that MajubaPower Station's ash sites are moving over a wetland.</p>	<p>Mells, Hendrik Chairman: Environmental Protection Agency KSW: 21 November 2012</p>	<p>That is exactly the reason why alternatives sites have been identified and what will be assessed in the Impact Phase. Ashlea Strong, Lidwala Environmental</p>
<p>In terms of Tailings Dams and Ash Disposal Facilities – Dam Safety Requirements in terms of Chapter 12 of the National Water Act, 1998, the following:</p>	<p>Van den Berg, Leo Department of Water Affairs: Dam Safety Office</p>	<p>Comment noted and forwarded to the Client for their attention as well as to the Legal Specialist for inclusion in the full legal review.</p>

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<p>It must also comply with the requirements in Chapter 4 of the National Water Act with respect to the use of water. Pollution control dams and tailings dam / mine residue deposit at mines must also comply with the Regulations on use of water for mining and related activities aimed at the protection of water Resources (Government Gazette 20119, Notice 704), 4 June 1999.</p>	<p>E-mail: 28 September 2012</p>	
<p>It was asked whether there is existing data available that shows the current water quality on his farm.</p>	<p>Van Heerden, Kobus Landowner FGM: 22 November 2012</p>	<p>Eskom has boreholes around the area and data is collected and this data will be made available to the specialists working on the project, to inform the team. William Mogwase, Eskom Tutuka Power Station The surface and groundwater specialist would make use of Tutuka Power Station's existing data during his detailed assessment in the Impact Phase, as well as ground-truthing the site/s. Ashlea Strong, Lidwala Environmental</p>
<p>It was suggested that Water Pollution be investigated during the EIA process.</p>	<p>Vosloo, Thys ThysVoslooFamily Trust E-mail: 3 October 2012</p>	<p>Appendix L addresses potential Ground Water impacts. A full ground water and surface water study will be undertaken during the EIA phase.</p>
<p>16. General Comments/ Issues</p>		
<p>It was commented that it is sometimes difficult to work through these Reports on the websites as they are not properly named, especially the Appendices and one needs to open them all to find the one that you are looking for.</p>	<p>Celliers, Johan Chairman: TAUSA (Mpumalanga) KSW: 21 November 2012</p>	<p>Assurance was provided that this proposed project's Report is properly indexed with a Table of Context and the Appendices clearly indicates which specialists' report it is. This demarcation is clearly presented even on the websites. Ashlea Strong, Lidwala Environmental</p>
<p>It was commented that it is Lidwala Environmental responsibility to advise Eskom as to why they are not the most famous neighbour and that they must, at all times, adhere to environmental standards. Eskom is damaging the country with their environmental impacts.</p>		<p>There are different regulations that Eskom must adhere to e.g. Eskom has to adhere to sewerage, air quality standards, etc, and if Eskom does not adhere to these standards they are penalised. William Mogwase, Eskom Tutuka Power Station Eskom (Generation) has an ISO Certification. Therefore, should landowners notice any non-compliance; it needs to be communicated with the station. The attendees were provided with the name and contact details of Eskom's Environmental Manager, Ms Deidre Herbst, and said</p>

Issue/Comment	Raised By	Response
		<p>if there are any issues that you have reported to the station, and are not getting attention, you are most welcome to give her a call.</p> <p>Tobile Bokwe, Eskom Sustainability Division</p>
<p>It was enquired as to whether Eskom is looking at other energy sources than coal.</p>	<p>Mells, Hendrik Chairman: Environmental Protection Agency KSW: 21 November 2012</p>	<p>Eskom does have a Research and Development Department and Eskom is looking at renewable energy i.e. wind farm, hydro and solar.</p> <p>Tobile Bokwe, Eskom Sustainability Division</p>
<p>What is the process involved for the underground coal gasification?</p>		<p>The project team is not able to answer the question as that project does not form part of this EIA. It was committed to providing him with the contact details of the team dealing with the UCG project</p> <p>Ashlea Strong, Lidwala Environmental</p> <p>Post-meeting note: The contact details of SSI (now Royal Haskoning) were forwarded to the attendee on 21 November 2012.</p>
<p>The project team was informed that the Association does not have a major concern regarding the proposed expansion of the ash disposal facilities, but the Association's other main issue is mining. The heavy metals that end up in the water systems, for e.g the Vaal River, and this is unacceptable and a great concern. He enquired whether the project team is aware of the negative effects heavy metals have on humans i.e. it affects ones brain, behaviour and emotions. Women become infertile, people get brain damaged. The biggest irrigation system is in the Vaal River. If the water is polluted it affects the agriculture sector, hence food production which in the end we as humans take in.</p>		<p>Comment noted.</p>
<p>The project team was informed that the Tutuka Power Station does not fall in the Olifants River catchment. The forum will therefore not be a stakeholder on this project.</p>	<p>Nieuwoudt, Marianne Coordinator: Olifants River Forum Coordinator E-mail: 10 October 2012</p>	<p>Comment noted.</p>
<p>The project team was informed that landowners are being approached for prospecting on their farms and wanted to know if they should allow those companies to prospect.</p>	<p>Van Heerden, Kobus Landowner FGM: 22 November 2012</p>	<p>Eskom cannot tell the landowners to allow prospecting or not, that decision will have to be made by the landowner on his/her discretion. It was also explained that if Eskom wants to make use of land for ashing and if there is a mineral right has been registered with DMR then discussions will take place between Eskom and the mineral rights owner.</p> <p>Tobile Bokwe, Eskom Sustainability Division</p>

Issue/Comment	Raised By	Response
		<p>It was requested that the details of the companies that are doing the prospecting on the properties to be forwarded to the public participation team.</p> <p>Ashlea Strong, Lidwala Environmental</p>
<p>The project team was informed that he and Mr Lottering are attending the meeting as representatives of their Departments. As previously mentioned the Head of Departments are unfortunately detained at the IDP meeting</p> <p>The team was advised that the District Municipality needs to be informed of the proposed project (contact person, Mr Dan Hlanyane) as all Environmental Impact Assessment Reports are sent to him for comments</p>	<p>Van Wyk, J Lekwa Local Municipality FGM: 22 November 2012</p>	<p>The District Municipality (Mr Hlanyane in person) attended the Focus Group Meeting held with Officials from the PixleykaSeme Local Municipality, held earlier in the week.</p> <p>Nicolene Venter, Imaginative Africa</p>