

**ENVIRONMENTAL IMPACT ASSESSMENT**

**FOR THE PROPOSED ISUNDU 765/400 KV SUB-STATION AND  
TURN-IN TRANSMISSION LINES (DEA EIA REF: 14/12/16/3/3/2/745)**

**PROCEEDINGS OF A KEY STAKEHOLDER MEETING  
RCL FOODS**

**7 November 2016**

## 1. ATTENDANCE

Attendance was as follows:

Name	Organisation
K Stoltz	RCL Foods
S Maharaj	RCL Foods
A Reddy	RCL Foods
T Govindasamy	RCL Foods
A Armstrong	Eversheds
E Hitye	RCL Foods
T Moodley	RCL Foods
F le Roux	Eskom – Civil
D Senekal	Eskom – Civil
D Naude	Eskom – Civil
A Naude	Eskom – Civil
D Angove	Eskom – Civil
M Nabbie	Eskom – Sub-station Engineering
J Alli	Eskom – LES
N Leseke	Eskom – Geotech
A Motalane	Eskom – Senior Environmental Advisor
V Dingiswayo	Eskom – Negotiations
B Solomon	Eskom – Legal
S van Houten	Eskom – Project Development
P Scherzer	ACER (Africa) Environmental Consultants

## 2. INTRODUCTION AND PURPOSE

Mr Paul Scherzer, ACER (Africa) Environmental Consultants (ACER), facilitated the meeting introductions and outlined that the purpose of the meeting was to present findings of the Draft Environmental Impact Assessment Report (DEAIR) and the proposed mitigation measures (as applicable to the concerns raised by RCL Foods).

## 3. PRESENTATION

Mr Scherzer made a presentation (Appendix 1).

He presented the challenges and difficulties associated with finding a suitable sub-station site and why the alternatives proposed by RCL Foods (RCL) were not feasible. He said these alternatives would be included in a section of the final EIAR but presented slides showing aerial images and contours associated with the proposed alternatives. A number of RCL's alternatives required the relocation of existing poultry farms, roads and transmission lines, had difficult access and also fell across a number of different property boundaries. These were all factors making them unsuitable, but the primary fatal flaw for most of them related to variable topography requiring large cut and fill volumes. Eskom had calculated some of these and, for example, RCL sites 3 and 4 had total cut and fill volumes of 18 and 20 million m<sup>3</sup>, respectively. In comparison, the Sigma site was calculated to be 1.8 million m<sup>3</sup> making it unfeasible, compared to the Isundu site with 730,000 m<sup>3</sup> cut and fill volumes.

Mr Scherzer stated that at the previous Key Stakeholder Meeting and in the DEAIR the key aspects of concern were identified as noise, dust and light ([omitted major concerns of biosecurity and blasting](#)). At the previous meeting, ACER had outlined the uncertainties related to potential noise and dust impacts.

Since this last meeting, further detailed geotechnical studies had been undertaken, the preliminary blasting report findings had been revised and updated, and ACER had facilitated numerous discussions between the various specialists to integrate the findings.

The DEIAR includes a table of the anticipated construction timeframes. These were based on the construction programme of a similar sized sub-station. The total construction period would be approximately three years, with the bulk earthworks taking approximately 8 months.

Mr Scherzer presented the findings on the following:

**Light**

During construction, lighting would be minimal and the specialist found that during operation it was unlikely that RCL would be affected by the sub-station lighting. Eskom has reviewed the recommendations made and has undertaken a preliminary lighting design and simulation. This showed that RCL would not be affected by dispersed light. Nevertheless, ACER has included in the mitigation measures the need to monitor the situation once the lights are operational and for Eskom to address any possible light issues that could impact RCL.

**Noise and Blasting**

Previously, ACER had presented the findings of the noise specialist study showing how operational noise and normal construction noise were unlikely to affect RCL, based on noise measurements taken. However, previously there had been uncertainty around the need for blasting.

In the interim, it has been confirmed that blasting will be required. Based on the blasting design, the specialist calculated that there will need to be 32 blasts for the initial construction of the sub-station. [Each 'blast' comprises of numerous charge holes over an area of 38 x 38m, with each charge being set off milliseconds apart from each other.](#) An additional fifteen blasts would be required if the sub-station is expanded at any time in the future, but if and when this would occur, is uncertain.

The duration of blasting could take anywhere between approximately 2.3 months (10 weeks) to about 4 months based on how blasting is programmed. Mr Scherzer explained the proposed blasting methodology and how the modelled vibration, air blast and fly rock estimates were not anticipated to have any impact upon RCL. However, audible noise from blasting is apparently difficult to measure and modelled calculations produced estimates of anywhere between 51 dBA to 92 dBA at L14. At the low end of this scale there would be no impact upon RCL; however, at the [middle to high](#) end there would be an impact. However, there are a number of variables and estimates in these calculations.

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### **Dust**

Mr Scherzer stated how there did not appear to be any recommended dust limits for poultry production. The specialist had based his modelling on various estimates found in the literature, but the literature recorded large dust level ranges.

Mr Scherzer outlined that with 75% dust mitigation on the site, the specialist's maximum dust limits would not be exceeded, but on a larger 21 ha site, the short-term target limit could be exceeded at L14 and L2 for 6% of the day time conditions. However, on a smaller cleared site there would be no exceedances.

The cautions and challenges in interpreting these findings were presented. [Mr Scherzer noted that the fans in the chicken houses will pull the dust in, and the nature of the dust may be problematic for the birds health](#)

In summary, ACER had found that there may be possible impacts upon RCL for a relatively short duration during the construction phase [over a period of 8 to 9 months](#). However, there may also be little to no impact. [Mr Scherzer noted that at this stage it would be difficult to assess the significance of this impact to RCL](#).

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Yet, because of the strategic implications of the proposed sub-station and the short-term duration of what were uncertain impacts, ACER had not proposed the no-development option, but rather devised a mitigation strategy.

This strategy would be for Eskom to first initially undertake a test blast to confirm how actual results compared to modelled results. Thereafter, these findings could be used to further ensure the necessary mitigation measures, as outlined in the DEIAR and Slide 21, were incorporated into the blast designs and construction programming.

## **4. DISCUSSION**

During discussions the following points were made:

- ❑ Mr S Maharaj raised his concern that layer birds were very sensitive and that whilst the sound itself may not be significant, they have seen how just changes in sounds could have an impact. With regard to dust, RCL are particular about bio-security and it was still a concern that there may still be the introduction of fungus, or other spores, etc. from the cleared site onto their farms.
- ❑ Mr Maharaj said that one of the key elements for them is having a consistent supply chain. Any impact higher up in the supply chain can multiply down the supply chain and so the uncertainty of potential impacts was a concern as they would not be able to plan for this. Mr van Houten asked if they had tolerances to which they worked. Mr Maharaj confirmed that they have a budget they work to and aim to meet [for known or expected impacts](#). If any unusual circumstances occurred they would need to buy in birds but over the years they had designed their processes to minimise this. [This would not accommodate the fatalities that would occur from ongoing events such as blasting and construction](#).
- ❑ RCL said that at other farms where blasting had occurred by mines they had experienced losses. Eskom asked if they could provide any specific details of the blast, the noise level or contractor where this occurred. Ms Armstrong said that Mr Maharaj would not have [the detail on](#) this information [personally](#), so it would need

to be followed up and RCL would get back to Eskom. Eskom also requested any information on known dust levels or impacts.

- ❑ Mr Scherzer mentioned that if L14 were to be closed up, there would possibly be a window during which the bulk of the blasting close to L14 could be undertaken.
- ❑ Ms Armstrong stated that although the DEIAR was well drafted and identified the range of various limits and uncertainties, it still seemed to be unknown if there would be any impact or not. If compensation was a last resort, she felt that Eskom may not wish to go all the way and then find that if the farms lose a year's production, the possible loss could be in the region of R 295 million, which may be too much for Eskom. She said that at the moment it just seemed like a balancing act, and that there were too many unknown factors in the report.
- ❑ Mr Maharaj said that there was never a time when there were no chickens, so even if L14 was empty, there could still be impacts on L13 for example.
- ❑ Mr Scherzer agreed that because of the uncertainties it was a balancing act and, hence, the cautious approach to mitigation with the test blast and the dust mitigation. However, none of the specialists had identified any potential impact upon farms further away and the only farms where possible impacts were identified were L14, L1 and L2. Yet, monitoring equipment could certainly be put up at the other farms as well. It was not envisaged that RCL would be at risk of losing a whole cycle, but rather that if any impact occurred it would be over a specific blast incident. Then, with monitoring, the impact could be confirmed and compensation considered by an independent auditor if these incidences resulted in production lower than RCL's average or budgeted levels.
- ❑ Mr van Houten said that it would be possible to undertake a blast and review if any impact occurred. If any did, then the blasting approach and mitigation would be revisited to reduce any noise. Thus, after each blast, mitigation would be revisited if necessary. Eskom stated that what you would do is to start initially with a very small blast and increase it slowly to ensure the rock was broken but no impacts occurred. Mr Scherzer clarified how blasting charges, quantities and other aspects could be adjusted with each blast to ensure impacts were minimised. However, it was difficult to be certain if the current design was sufficient as calculating audible noise from air blast pressure did not appear to be an exact science. Yet, after each blast, the design would be checked and adjusted where necessary.
- ❑ Mr Stoltz said that they were still concerned about L14 as it was very sensitive and would be most likely affected. Without being closed up to be dust and light-tight it would be very vulnerable to noise and dust impacts, and with the proposed construction they may not get any eggs from those birds. RCL said it was difficult to estimate any losses, but they would feel the loss. If a tractor was started on the outside unknowingly they could lose 400 birds. It must also be understood that with the additional dust there would be more pathogens in the air and RCL would sit with this risk. If they lose their flock, it is 25% of RCL's KZN production and they employ 8,000 people. The risks relating to the dust noise and blasting impacts were too great.
- ❑ Mr Stoltz stated that they realised that Eskom clearly needed to keep making progress on this site and needed to supply power, yet RCL was concerned about their risks. Yet, if Eskom says they are prepared to carry these risks then things become simpler. RCL said that their standard was a 4 - 6% mortality and so if all of a sudden they had 25% mortality, then the task of quantifying cause and risk which will be difficult could not be passed onto them.
- ❑ Ms Armstrong said that closing L14 just solved part of the problem but the report was not categoric enough to make a final recommendation as to the success of the

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mitigation measures. So, there is still just too much doubt about the risk to an enterprise like RCL Foods. Unfortunately, the loss to RCL could potentially be too large to tolerate, even for Eskom.

- Various discussions were held around the duration of time for which L14 could be closed for washing and if this could be extended. Mr Maharaj said that birds coming down the chain needed somewhere to go and so it was not really possible to extend the closed time period. The houses were only closed for a period of 3 weeks which could not accommodate the basting period of up to 4 months.
- Ms Motalane mentioned that she felt that some of the doubt in the DEIAR surrounding the mitigations measures was also as a result of RCL also not having any statistics on their losses after certain noise or other disturbances, so that more certainty could be calculated. She also mentioned that Eskom recognised the sensitivity of their farms and, hence, had agreed to relocate the proposed 765 kV transmission line around their property. Thus, when construction started no one would need to access their property.
- Mr S Maharaj asked if Eskom had considered purchasing their property. Ms Solomon said that Eskom had not considered purchasing the property but rather mitigating the impacts. In response to Ms Armstrong question, Ms Solomon said that the property where the sub-station was to be located had not be purchased yet by Eskom. Ms Motalane asked if they would prefer L14 to be closed-up or moved elsewhere on their property. Mr Maharaj said he felt it would cost a lot more to move it and all decided that moving L14 was not an attractive option.
- Mr Scherzer confirmed that the Bird of prey Sanctuary would not co-exist with the substation, and that Eskom has agreed to move the Bird of prey Sanctuary.
- Ms Armstrong said that currently RCL was not satisfied that the potential impacts could be addressed, even with the proposed mitigation and monitoring. Mr Scherzer responded saying the mitigation measures included measures on the sub-station site, measures on RCL's property and, lastly, also that any losses would need to be compensated.
- A brief discussion was held on if there were feasible alternatives to blasting. Eskom said that the chemical 'blasting' was an option but they were not sure if this was feasible for this type of rock or for the whole site.
- Mr Stoltz stated that one of the pre-requisites that RCL would insist on would be that L14 would have to be closed up, which would put RCL in a better situation. Then, on dust RCL and Eskom would need to have a look at what is possible with the screens and monitoring. Then, lastly, there would need to be a mechanism agreed upon whereby RCL could say there has been something out of the ordinary and now it is time for compensation. This is what RCL needs. It would also be important to put in place some sort of tool on how compensation would be calculated, viz. based on mortality rates.
- Mr Maharaj said they could work out a scale of what their baseline is and then what different percentage losses would cost.
- The timeframes for construction to start was ideally estimated around 2020.
- Mr van Houten said that if there was any information RCL had that could help Eskom and ACER better define the tolerances that had currently been estimated, then they should please provide this.
- RCL stated they still needed time to review and consider the DEIAR findings in more detail.

## 5. CLOSURE

Mr Scherzer ended the meeting stating its purpose had been to present the DEIAR findings pertinent to RCL Foods' concerns. He stated that the public meeting will be held on 16 November 2016, but that he would not be covering RCL's issues in such detail at the public meeting, but RCL were invited should they wish to attend. The comment period ended on 15 December 2016. Thereafter, in January 2017 the FEIAR would be prepared. However, if there is a need for an additional meeting prior to the FEIAR being submitted or on the FEIAR, then this could be arranged as the intention is to work together with RCL to ensure their concerns were adequately addressed.

## **Appendix 1: Presentation**