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Eskom Holding Limited
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28 February 2014

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ESKOM REQUEST FOR VARIATION OF KRIEL POWER STATION'S ATMOSPHERIC EMISSION LICENCE

1. Background

The Mpumalanga Department of Economic Development Environment and Tourism, on behalf of the Nkangala District Municipality (NDM), issued an Atmospheric Emission Licence (AEL) (License no 17/4/AEL/MP312/11/09) to Eskom Kriel Power Station on 6 June 2013. As of 1 July 2013 the NDM resumed its function as an AEL licensing authority.

In terms of Section 46 of the National Environmental Management: Air Quality Act, Eskom Kriel Power Station subsequently applied for variation of the said AEL to the NDM.

Eskom conducted the required public participation in terms of Section 46(3) and (4), and representations were received from the Centre for Environmental Rights and Green Peace Africa in relation to the variation request. The NDM has reached the following decisions on the four variations requested, as set out below:

2. Eskom's Grounds for the Variation Requests

Eskom made these variation requests on the basis of deteriorating coal quality, technical challenges faced by an aging facility and the constrained electrical supply situation in South Africa.

3. Information Considered

The NDM has based its decision on these variation requests on the following documentation / information:

- 1) The Atmospheric Pollution Prevention Act (APPA) Review Project (2009)
- 2) The Atmospheric Emission Licence (17/4/AEL/MP312/11/09 – dated 31 May 2012)
- 3) The Appeal Decision of the Honorable MEC Y.N. Phosa (24 May 2013)
- 4) The Atmospheric Emission Licence (17/4/AEL/MP312/11/09 – dated 6 June 2013)
- 5) Eskom's Request for Variation (Ref ENV13/L206)
- 6) A Site Visit to the Kriel Power Station (10 January 2014)
- 7) Further Information Requested After 10 January 2014 Site Visit (Ref ENV14/L028)
- 8) Representations from the Centre for Environmental Rights (CER/33.5/RH/SK)
- 9) Representations from Green Peace Africa

4. Variation Requests and Response

4.1 Variation Request 1: Section 7.2: Maximum Release Rate for Particulate Matter Until 1 April 2015

Eskom request that the maximum (daily) release rate for particulate matter until 1 April 2015 be changed to 350 mg/Nm³, except for 4 days in a month when a maximum daily release rate of 550 mg/Nm³ is applicable.

Variation Request 1: NDM Response

After consideration of this variation request and the associated submissions, the Nkangala District Municipality (NDM) has determined that the particulate matter limit of 125 mg/Nm³, per unit, under normal operating conditions, should be retained. This emission limit was negotiated and agreed by both Eskom and the Department of Environmental Affairs, as part of the Atmospheric Pollution Prevention Act (APPA) Review Project which was concluded in 2009. However, for the period from the date of the signature of the AEL to 31 March 2015, the NDM has decided to amend the averaging period to be on a calendar month basis, per unit, under normal operating conditions. Eskom's request for the higher emission limits under normal operating conditions is rejected as we are of the opinion that these emission limits would be applicable under normal maintenance and shut-down conditions and this is dealt with under Variation Request 2.

4.2 Variation Request 2: Maintenance and Shutdown Conditions

Condition 7.3.2 in Kriel's AEL states that "normal maintenance and shut-down conditions shall not exceed a period of forty-eight hours"

It is requested that this condition be amended to: "Normal maintenance condition shall not exceed a period of 37 days a year, per stack. Shut down conditions shall not exceed the timeframes stipulated in 7.3.3 and 7.3.4. The

Licensing Authority is to be notified prior to maintenance being conducted which will result in the emission limit applicable to normal working conditions being exceeded for more than 48 hours"

Variation Request 2: NDM Response

After consideration of this variation request and the associated submissions, the Nkangala District Municipality (NDM) has decided to reject the variation request. The cumulative impact on the ambient environment has not been assessed as part of this variation request. Eskom have only assessed the impact of the Kriel and Malla Power Stations and the dispersion modelling methodology for the elevated emission scenarios is not considered to be fully representative of all potential meteorological conditions. As such, the NDM is applying the precautionary principle and will not be granting this requested variation. In the opinion of the NDM should any normal maintenance or shut-down condition exceed the 48 hour limit then Section 30 of the National Environmental Management Act (No. 107 of 1998), as amended, shall apply.

4.3 Variation Request 3: Continuous Emission Monitoring

There are numerous contradictory requirements for continuous emission monitoring in Kriel's AEL:

- i. Condition 7.2.7 requires that all units are to be fitted with continuous monitoring for PM, SO₂ and NO_x by 2015.
It is requested that this condition is amended to read "All stacks are to be fitted with continuous emission monitoring for PM, SO₂ and NO_x by 2015."*
- ii. Section 7.4 stipulates that annual sampling of SO₂ and NO_x must be done for Units 1-6 while continuous emission monitoring must be done for PM.
It is requested that this condition is removed.*
- iii. Condition 7.4.2 stipulates that gaseous emission monitoring systems are to be verified during 2011. Reporting is to commence once verification is complete, by latest 1 April 2012.
It is requested that this condition is amended to read "Continuous emission monitoring and reporting of SO₂ and NO_x emissions is required with immediate effect for Units 1-3 (North Stack). Continuous emission monitoring and reporting of SO₂ and NO_x emissions for Units 4-6 (South Stack) is to commence in 2015."*

Variation Request 3: NDM Response

During the site visit to the Kriel Power Station on 10 January 2014 a number of observations were made around the continuous emission monitoring activities on the stacks and ducting from the individual units. At the outset we wish to draw to Eskom's attention provisions of Section 51(1)(f) of the National Environmental Management: Air Quality Act. The observations made during the site visit are inconsistent with the representation made in the variation request. Our observations, confirmed by plant representatives, indicate that there are already

continuous emission monitors installed on each of the units and a continuous emission monitor is already installed on the South Stack, but is has not yet been commissioned.

The NDM reaffirms the appeal decision made by MEC Phosa and Condition 7.2.7 of the AEL will not be amended. As such, this variation request is not granted.

Section 7.4 of the AEL will be amended to read as follows: *"Until continuous emission monitoring for particulate matter, SO₂ and NO_x, is installed, commissioned and reporting, bi-annual sampling of each unit must be done."*

The numbering inconsistency in Section 7.4 of the AEL will be rectified in the revised AEL. Condition 7.4.3, will be renumbered 7.4.2 and will be amended to read as follows: *"Continuous emission monitoring systems are to be installed, commissioned and verified during 2014. Reporting is to commence once verification is complete, latest by 1 January 2015."*

4.4 Variation Request 4: Deadline for Investigation into Emissions during Start-up, Maintenance and Shut-down Conditions

Condition 7.3.4 in the Kriel's AEL requires that the License Holder undertakes an investigation to measure, monitor and report on emissions during start-up, maintenance and shut-down conditions on receipt of the Atmospheric Emission License, and section 7.7 stipulates that this investigation should be completed by 31 July 2013 (or 1 year after first issue of the AEL, whichever happens first).

It is requested that the date for the completion of the investigation into emissions during start-up, maintenance and shut-down conditions be changed to 31 October 2014.

Variation Request 4: NDM Response

The NDM grants this requested variation and Condition 7.7 will be amended to read as follows: *"The License Holder shall undertake an investigation to measure, ascertain and accurately determine the maximum release rate achievable under normal start-up, maintenance and shut-down operating conditions on receipt of the Atmospheric Emission License and the completion date shall be fifteen (15) months from date of signature"*.

5. CONCLUSION

In conclusion the municipality would like to express the sincere appreciation to Eskom and all other interested parties for the submissions made thereby ensuring that all relevant factors are considered before the final decision was made.

Yours Faithfully



SKOSANA MM

MUNICIPAL MANAGER